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(Published in March 1953)

EDITOR

PROF. A. S. ALTEKAR, M.A., LL.B., D.LITT.,

Head of the Department of Ancient Indian History and Culture,
Patna University.

THE

NUMISMATIC SOCIETY OF INDIA

THE PRINCE OF WALES MUSEUM,
BOMBAY 1.

1952

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A UNIQUE PORTRAIT COIN OF VĀSISHṬHĪPUTRA PULUMĀVI.

By Dr. H. V. Trivedi, Indore.

[Pl. I. 1—2]

In the valuable coin collection of Mr. N. R. Advani, Chief Conservator of Forests, Madhyabhārata, I came across a unique portrait silver coin of Vāsishṭhīputra Puḷumāvi, which I am publishing. So far only two Sātavāhana kings are known from their portraits, Vāsishṭhīputra Śātakarṇi and Gautamīputra Yajñaśrī Śātakarṇi. The present piece reveals the portrait of a third Sātavāhana ruler. At the end of this paper I am publishing another interesting Sātavāhana coin also.

The coin, which is published here for the first time (Pl. I. 1-2)[1] was obtained by the owner from a river-diver at Bhilsa in Madhyabhārata in the year 1949. Its blackish colour and somewhat twisted edges show the effects of its rolling in water for long. It has two holes pierced at the top, indicating that it was for some time worn as an ornament either by the fisherman or by some one of his relatives.

The coin is circular in shape, its diameter being ·65″. It weighs 28 grains. It has on its obverse the bust of the king, facing right, as on its proto-types; but unlike any of these, the bust on our coin wears a crown.[2] On either side of the bust the Brāhmī legend runs round. The reverse type of the coin bears close affinity to most of the silver coins of the Sātavāhanas; it has a crescented six arched *chaitya* on the right and the Ujjain symbol on the left, surmounted by a crescent; there is a rayed sun between these two symbols.

On the obverse the legend on the right commences from the crest jewel of the king. The first letter has not fully come out, but it looks like the lower part of a *va*. Of the following two letters only the lower portions are visible; but they can be restored with certainty as *siṭhī*; and following them there are three letters clearly to be read as *putasa*. Thus this part of the legend can with a fair amount of certainty be restored as *Vāsiṭhīputasa*. On the left the legend is fragmentary and only two of the initial letters *sara* (*Sirī*) appear to be distinct, the rest being either indistinct or partly off the flan or lost in the perforations.[3] It is most unfortunate that precisely the

1. Pl. 1. 1. is in actual size and Pl. 1. 2.is in enlarged size.

[2. It appears more probable that the King's head is shown as having frizled hair with a diadem going round it. A. S. A.]

[3. Faint traces of *Puluma* can be seen on Pl. A. S. A.]

name of the king should have been lost on the obverse ; luckily we can detect it in the reverse legend.

The legend on the reverse is still more difficult to restore, some of the *aksharas* being only partially visible while others mutilated, indistinct or lost in the holes. Two important letters, however, have fortunately been saved for us : at IX we read them as *pulu.*[1] Following this clue and with the help of a microscope, I propose to restore the legend as *Rāño Vāsiṭhīputasa Pulumāvisa.*[2] The precise form of letters or the necessary changes in the legend in consequence of the varying script was impossible to detect, but the name of Vāsishṭhīputra Pulumāvi was found to be fairly certain ; and to him we may ascribe the coin.

Silver coins of the Sātavāhana rulers are rarely obtained ; in all only seven specimens are known so far. Three of them were published by Rapson, one by D. R. Bhandarkar, two by Dr. Altekar and one by Prof. S. L. Katare of Jubbulpore ;[3] and excepting one,[4] all these coins are the issues of the same prince, Gautamīputra Śrī Yajña Śātakarṇī. Thus the present specimen is the eighth silver piece of the dynasty and the seventh specimen of the type, and being an issue of the prince whose silver coins have not so far been known, it is a valuable material for throwing light on the history of the dynasty, as also of the region around Bhilsa where it was obtained. It gives us a new portrait of a Sātavāhana prince. How far it can be helpful in solving the controversy started by Mr. P. J. Chinmulgund on the attribution of a unique silver coin of Gautamīputra, published by Dr. Altekar in *J.N.S.I.*, VIII, pp. 111 ff.,[5] and whether in view of its discovery we have to modify the observation of Rapson that the change from a three-arched *chaitya* to one of six arches prabably took place in the reign of Gautamīputra Śrī Yajña Śātakarṇi (*Catalogue*, Introd., pp. lxxii-lxxiii) are points for further research.

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1. More distinctly in the enlarged size.

[2. On Pl. I. 2 the letter preceding *pu* clearly looks like *ru* but the letter previous to it has gone off. Possibly the *Pulu* was preceded by the word *hiru* as on the coins of Yajña-Śri S'ātakarṇī. At V, *ṭhi* is fairly certain, and between the two holes we can see fairly clear traces of the letter *sha* of the Āndhradeśa type, as on the coins of Yajña Śrī. The letter preceding *ru*, however, does not look like *ha* of the Āndhradeṣa type. It is however fragmentary. I would restore the legend as [*Rāño Vāsi*] *ṭhi* [*Puta*] *sha* [*hi*] *ru Pulu* [*māvisha*]. The first four or five letters are quite indistinct, and the first word may well have been *Araka* as in the coins of Vāsisthīputra S'ātakarṇi and Yajñaśrī S'ātakarṇi. A.S.A.]

3. *Catalogue*, p. 45; *ASI.*, A.R., 1913-4 p. 208; *J.N.S.I.*, VIII, p. 111, and *ib.*, XI, p. 59; and *ib.*, XII, p. 126 respectively.

4. Published by Dr. Altekar in *J.N.S.I.*, XI, p. 59 which is attributed by him to Vāsishṭhīputra S'ātakarṇī.

5. For the controversy and for the reply of Dr. Altekar, see *ib.*, IX, pp. 93ff.

[Dr. H. V. Trivedi is to be congratulated on the discovery of this silver coin of Vāsishṭhīputra Puḷumāvi, since it gives his portrait for the first time. He appears to be a man of resolution with an aquiline nose. Gautamīputra Śatakarṇi appears to have merely counterstruck the silver coins of Nahapāṇa. The present piece would show that his son Vāsishṭhīputra Puḷumāvi started the practice of issuing silver coins with royal portrait. It was later continued by his successor Vāsishṭhīputra Śātakarṇi, whose coin in the Prince of Wales Museum was published by me in this *Journal*, *J.N.S.I.*, XI, p. 59. Yajña-Śrī Śātakarṇi merely continued the practice. We may now reasonably expect to get more silver coins of the successors of Gautamīputra Śātakarṇi with their portraits on the obverse. *A.S.A.*].

II

A SĀTAVĀHANA COIN FROM UJJAIN

[Pl. I. 6]

The coin which is reproduced here in **Plate I. 6**, also belongs to Mr. Advani. It is of potin, round in shape with a diameter of ·5″. It weighs 20 grains. It is in a fair state of preservation, but a small portion on one side is truncated. On the obverse it shows the figure on an elephant, facing right, with its trunk hanging down and with the legend running on the left, commencing at VIII. The reverse shows a peculiar device, which is made of four straight lines crossing one another at a central point and ending on both sides in what look like petals. On the right an additional symbol is partially visible; its exact nature is not known but it may have been a tree in railing.

The legend is blurred and the upper portions of its letters are truncated, but it is very probable that in all it contained eight or nine letters. Near the upper part of the tail of the animal, there is a letter clearly to be read as *ta*, and following it, there are traces of what looks like *ma*.[1] The rest of the letters, which precede and follow these two, are either truncated or partly off the flan. Presuming our reading to be correct, we are inclined to complete the name in the legend as Gotamīputa, since no other name of any Sātavāhana ruler is known to contain the two letters *ta* and *ma* side by side.

The figure of elephant on the piece very much resembles the one on the coin of the Sātavāhana rulers, for which Nos. 74-5 on pl. IV of Rapson's *B. M. C.* may be compared. But our coin has a different device on the reverse.

[1. These are not clear in the photograph. A. S. A.]

Whether we can identify this ruler, who is mentioned by his metronymic, is the next question. As many as three princes are known by this metronymic. The issuer cannot be Viḷivāyakura whose coins are found in the south at Kolhapur, and whose coin type differs from that of ours. Similarly, he can hardly be identified with Srī Yajña Śātakarṇi, whose coins showing the figure of an elephant, are found in the Chanda district (Rapson's *B. M. C.*, Nos. 165 ff.) ; but on none of these pieces he is mentioned by his metronymic. Thus the only possibility left is to identify the issuer of the present coin with Gautamīputra Śātakarṇi, the conqueror of Nahapāṇa. His coins, now in the British Museum, were no doubt collected by Pt. Bhagvanlal Indraji, but their provenance was not known. The find spot of the present coin would tend to show that this type was current in Mālwā.

The symbol on the reverse of our coin is not known on any of the Sātavāhana coins ; it is a new feature in their coinage. I am unable to explain the point, but this kind of reverse symbol is also noticed on one of the coins published by me in the preceding issue of the *Journal*, Vol XIII. pl. XI, No. 11. In a foot-note to the description of the same coin Dr. Altekar states that the symbol represents "probably tree with large leaves", but in view of the coin now published, the point has to be reconsidered, and on minute observation of both the coins I am inclined to interpret the symbol exactly as I have described above. We know that Ujjain formed part of Nahapāṇa's dominions ; and in view of this it may also be tentatively suggested that after vanquishing Nahapāṇa and capturing Ujjain from him, Gautamīputra Śātakarṇi may have struck some coins in the then current local type, and thus the reverse symbol is found on these coins, an elaborate form of the Ujjain symbol or of the unspoked wheel.[1] It may, however, be stated here that the point deserves further examination.

[1. This symbol is similar to that on the Sātavāhana Coins published in *B.M.C.A.K.*, pl. IV, 74-5, and on the Ujjain coin, published, *ante*, Vol. XIII, p. XI, 11. I think that in all these cases we have a tree with large leaves. A.S.A.]

TWO COINS OF JYESṬHAPURA, CAPITAL OF THE ŚIBIS (?)

By Dr. A. S. Altekar, Patna University

[Pl. I, 3-4]

The two coins, which I am publishing in this note, belong to the valuable collection of Mr. N. R. Advani, Conservator of Forests, Madhyabharata, several coins from whose collection were published in the last number and are being published in this number also elsewhere. Both of these coins were obtained from local Kaserās (copper-pot-dealers) at Indore. How they came there we do not know. One of these coins, **Pl. I, 4** had a Puri coin stuck in it, when it was purchased. We cannot merely on this ground assign the origin of these pieces to Orissa. Ujjain was a famous place of pilgrimage and Puri coins could occasionally have travelled there with pilgrims. Later on local and Puri coins may have been sold away to local Kaserās, and they may have got stuck in their shops when preparations were made to melt them.

The metal of both coins is bronze, and both of them are 1″ in diameter. But **Pl. I, 3** weighs 125 grains and **Pl. I, 4** has the weight of 86 grains only. It is relatively thinner. I shall first describe these pieces and then discuss them.

First coin.

Obv. Within circular border, field divided into two by a horizontal line ; above it, Bull standing to left and apparently eating fodder from a barrel-like object ; above the Bull a Crescent. In the lower field, legend in Brāhmī characters of about the 5th century, A. D. *Jaṭhapura*. **Pl. I, 3**

Rev. Blurred and corroded. (Not illustrated.)

Second coin.

Obv. Same as above. Crescent above the Bull is clear, and a penon-like object is seen flying above the back of the Bull.

The legend is clearer here and reads *Jesṭhapura*. **Pl. I, 4**

As regards the reading of the legend, the first letter is clearly *ja* on **Pl. I, 3**; a short vertical line seems to be connecting this letter with the horizontal line above, suggesting the medial vowel *i*. But on the original coin there is no such line. The

second coin, Pl. I. 4, shows faint traces of medial *e* behind the letter *ja* ; it has come out fairly well in the photograph. There is no subscript below this letter. On Pl. I, 3 the second letter looks clearly like a round *ṭha* with its central line distinct and right hand side somewhat blurred. But when I got an opportunity to examine the coin in the original, and when I compared this letter with that on the second coin, Pl. I, 4, I found that the so called *ṭha* was really a *sha*. The second coin shows faint traces of a subscript *ṭha* below the letter *sha*. On the photograph, these traces are but faintly visible. On Pl. I, 4, the right hand vertical of *sha* appears slightly attached to the following letter, which can thus be taken as a *ghu*. But there can be no doubt that the second and third letters are *shṭha* and *pu* and not *ja* and *ghu*. Last letter is a clear *ra*. An examination of the two pieces in original leaves no doubt that the reading is *Jeshṭhapura* ; the correct original form was obviously Jyesṭhapura.

The reverse side of both the coins is blurred, corroded and rubbed. After carefully examining it on both the coins in the original, I feel it very probable that it was blank. The reverse of the second coin, however, shows a small knob, suggesting that the piece was fixed up probably in a necklace, or attached to some object. The knob is now almost completely rubbed off.

Since the reverse side of both the pieces was probably blank, it is possible to argue that they were tokens or passports of the city of Jeshṭhapura, or the impression in bronze of its city seal. The design on the obverse, however, bears a general resemblance to that of the Gupta copper pieces current in contemporary times. I am therefore inclined to regard both the pieces as specimens of the coinage of Jeshṭhapura rather than of its city seal. So far we have known the coins of the cities of Pushkalāvatī, Kapiśā, Mādhyamikā, Ujjayinī, Erakiṇa, Tripuri and Vārāṇasī. Now we can add Jeshṭhapura to this list, as also Bhāgilā, whose coins are being published elsewhere in this number.

It appears that like the citizens of Pushkalāvatī in Gandhāra, the residents of Jeshṭhapura were also worshippers of Śiva, since they had his mount Bull as their symbol on the coinage.

The question as to where the city of Jyesṭhapura was located is not easy to answer. The clan Jeṭhwā is spread in Kathiawar and we have several Jeṭhpurs there even today, as appears from the Gazetteer information. It, however, does not appear that the present coins were issued from one of these towns in Kathiawar. It is doubtful whether the Jeṭhwās were

known by that name in the Gupta period. There is one Jayatpur in the Hamirpur district of U.P. One may, however, doubt whether the present coin can be attributed to that place. Its antiquity is not much earlier than the 17th century.

We should look for Jeshṭhapura in Madhyabhārata and Rajaputana. According to the Vessantara Jātaka, the city of Jeṭuttara was the capital of the kingdom of the Śibis. A large number of copper coins have been found at Nāgarī near Chitor in Mewar with the legend

Majhamikāya Śibijanapadasa[1].

This legend makes it clear that the republic of the Śibis was somewhere in Mewar and Majhamikā or Mādhyamikā was one of its cities. We know from the *Mahābhāshya* of Patañjali that the Greeks had besieged this city.

If we are to trust the evidence of the Vessantara Jātaka, it would appear that the capital of the Śibis was not Mādhyamikā but a city named Jeṭuttara. The derivation of this name is not clear, but it seems very probable that Jeṭuttara of the Jātakas and Jeshṭhapura of our coins are identical. Cunningham thought that Jeṭuttara of the Jātakas was the same as the fort of Chitore; the latter, he opined, was a corrupt form of Jayatur or Jetur of Muslim writers, *cha* being easily mistaken for *ja* in Muslim calligraphy. One, however, wonders whether Chitore was really known as Jetur or Jayatur or Jeṭuttara or Jyeshṭhapura. The point is well worth investigating.

Dr. H. V. Trivedi, however, informs me that about 12 miles north-east of Nāgarī, there is a village named Shivapura and that 34 miles to its east is a village named Jaitapurā in the Jawad Tehsil of the Mandsore district. Since Śibi coins are found near Nāgarī, it is quite likely that the above Shivapura may be connected with the Śibis and that Jaitapurā may be Jeṭuttara of the Jātakas. Whether our Jyeshṭhapura can be connected with this Jaitapurā, it is difficult to state. Jyeshṭha can be transformed into Jait. I am inclined to think that Jyeshṭhapura may be the same as Jaitapurā, the latter being Jeṭuttara of the Śibi Jātaka.

Dr. Trivedi has kindly drawn my attention to another place in Madhyabharata, which may be our Jyeshṭhapura. It is the village Jeṭhwai just to the south of the Narmada in the Nemad district of the Madhyabhārata. One Rāshṭrakūṭa copperplate was found at this village; it was dated Śaka 708 and issued by Dhruva (*E. I.* XII,p. 98 ff).

1. *C.A.S.R.*, VII. 28; *J.N.S.I.*, IX. 82.

If Jyeshṭhapura of these coins is the same as the capital of the Śibis, it is clear that the Śibi coinage of the 4th-5th century A. D. bore no resemblance to the republican coinage of the place, illustrated *ante*, Vol. IX, Pl. V. The republican coinage was issued in the 3rd-2nd century B. C. and it resembled the contemporary coinage. The coins of Jyeshṭhapura recall the contemporary Gupta copper type with the field divided into two parts, the upper one having a symbol and the lower one having the legend.

HITHERTO UNKNOWN COINS OF THE CITY OF BHĀGILA.

BY DR. SANT LAL KATARE, M.A., D. LITT., MAHAKOSHALA MAHAVIDYALAYA, JABALPUR.

[Pl. II. 13-17]

The coins, which I am publishing here, are of unusual interest and were not known so far. They were recently collected by Thakur Indra Kumar Singh Chauhan of village Jamunia in the Hoshangabad district of the state of Madhya Pradesh. He has very kindly lent them to me for study and publication. These coins were discovered near about the banks of the river Narmadā, which flows from east to west some five miles north of Jamunia. There is thus absolute certainty about the *provenance* of these coins; the actual place of the origin of the coins does not seem to have been far off from the banks of the river Narmadā, north of Jamunia.

In all five coins of this type have been found. They belong to two varieties. All of them are of copper, roughly square in shape and die-struck.

I shall first describe the coins.

VARIETY A.

No. 1.

Weight: ·95 grs.; size: ·95″ × ·84″.

Obverse: At the bottom, river with fish, tortoise, taurine symbol and *svastika*, a rather peculiar combination[1]. Above the river, on the right side, there is tree with large leaves in the railing, probably representing the *Vaṭa* and on the left a prancing bull in high relief facing top side with its head upward and the tail downward. Above the *Vaṭa* tree and on the right side of the legend there is a lotus flower. At the top, on the left side of the lotus, the legend in early Brāhmī characters [*Bh*]*āgilāya*.

Pl. II. 13.

Reverse: Blank.

1. For details please refer to page 11, f. n. 5.

No. 2.

Weight: 64·5 grs. Size: ·75″ × ·7″.

Obverse: The symbols are the same and arranged in the same order as on the coin No. 1 above. The lotus symbol on this piece is better impressed than on the first; but in the case of the legend, the first letter is partly effaced and the last letter *ya* is somewhat indistinct. The letter *gi* is quite distinct.

Pl II. 14

Reverse: Blank.

No. 3.

This coin is worn out and not so well preserved as the first two; its lower portion containing the river symbol is broken off.

Weight: 48 grs. Size: ·8″ × ·62″.

Obverse: The symbols are the same and arranged in the same order as on the above coins. The legend is mostly effaced and indistinct; only the verticals of *lā* and *ya* are visible.

Pl. II. 15

Reverse: Blank.

No. 4.

This coin appears to have been pentagonal in shape; if at all it had four sides, they were highly irregular and very much disproportionate to each other. It is partly broken off, effacing practically the whole of the legend and the head of the bull.

Weight; 46 grs. Size: ·75″ × ·81″.

Obverse: The symbols are the same as on the above coins, but the legend is almost completely effaced leaving only faint traces of the circular stroke below the vertical of *ya*.

Pl. II. 16

Reverse: Blank.

VARIETY B.

There is only one coin of variety B.

Metal: Copper. Weight: 115 grs.
Size: ·95″ × ·84″ Shape: Square.

The symbols on this coin are the same as on the above coins, but they are differently arranged.

Obverse: At the top, the river symbol similar to that on the coins of variety A above. Below the river symbol, on the right side, tree in railing laid upside down and on the left a prancing bull in high relief, facing left with its head downward and the tail upward. Below the tree, the lotus; to its left, the legend *Bha(bhā)ga(gi)la(lā)ya.*[1]

The letters *bha*, *la* and *ya* of the legend are very clear and distinct.

Reverse: The symbols are very indistinct. There is a wavy line indicating the river. Below the river symbol, there is a large lotus flower and on its right, at the lower end of the coin, there are faint traces of the tree symbol.

Pl. II 17

The reason for the symbols on the reverse of the coin being so indistinct cannot be explained. When all other coins of this type have a blank reverse, the coin of variety B having symbols on the reverse seems rather curious. It may not be unlikely that a die meant for a different type of coin was by mistake applied first, but the mistake having been discovered soon, the correct die was then struck on the other side of the metal piece.

The obverse of the two varieties of the *Bhāgilāya* coins show the legend and the four symbols; only their relative position differs. The reverse of variety A is plain[2], while that of the variety B has three symbols, the river, flower and tree.

The prancing bull on these coins is their distinguishing feature. The symbol of the bull has been found on other coins of Ujjain[3] and Eraṇ,[4] but it is not a prancing bull on them. The river symbol with fish, tortoise, etc. has been found on several coins discovered by Bhandarakar at Basnagar.[5]

[1. The reading of the last letter is clearly Y*ā* and not YA. A.S.A.]
I prefer to read it as *ya*. The horizontal stroke which the editor takes for the *mātrā ā*, is a part of the lotus symbol; the lotus being in close proximity of the legend. The lotus and the legend have been confounded. Author.

2. [It is possible that the variety A was the earlier phase of the coinage of the city, when coins were blank on the reverse, and variety B was issued later, when symbols were introduced on both the sides. Early punch-marked coins usually bear symbols on one side only. Palaeography of variety B with its shorter verticals for *ya* and *la* and round *ga* also suggests a later date. Variety A may have been current at *c.* 200 B. C. and variety B at 100 B. C. The city coinage continued for about a century at least. *A. S. A.*]

3. Allan : *B. M. C., Coins af Ancient India, p.*249, Nos. 56, 57, pl. XXXVIII : 15-16; pl. 244, Nos. 25-26 pl. XXXVII. 1.

4. *Ibid.*, pl. 144, No. 31 pl. XLIII. 9; Cunningham: *Coins of Ancient India*, pl. XI. 11-12; A. S. R. Vol. X, p. 81, pl. XXIV, 17.

5. *A. S. I. A. R.* 1913-14, p. 221, Nos. 24, 25, 27, 28 & 30 ff, p. 224, pl. XLV : 1-3, 13, 11, 7, 17, 21, ff.

The legend on all the coins is the same. It reads *Bhāgi-lāya*. There is absolute certainty about its reading. *Bhā* and *ya* are quite clear on coin No. 5, *gi* on Nos. 1 and 2 and *lā* on Nos. 2 and 5.

The form of the *Brāhmī* characters of the legend suggests an early date for the coins. The characters *Bha*, *la* and *ya* have long verticals, while *ga* has a sharp angle at the top on coin No. 2; its back appears to have a slight curve on coin No. 5, but on others two angles are formed by joining the two verticals by a horizontal stroke. The characters are similar to those of the coin of Dhamapāla and the inscriptions of Aśoka. They are certainly earlier than the age of the Nānāghāṭ inscription of Nāyanikā.[1] From the close similarity of the characters of the legend with the Aśokan characters and those of the coin of king Dhamapāla found at Eraṇ[2], I am inclined to assign the coins to a date not far removed from that of the death of Aśoka; they may be assigned to the last quarter of the 3rd century B. C.

INTERPRETATION OF BHĀGILĀYA.

The interpretation of the legend *Bhāgilāya* on the coins presents a difficult problem. *Bhāgilāya* may be the name of either a city or a king. But the possibility of its being the name of a king may be ruled out as the legend has no honorific prefix, *Śrī* or *Raño*. The legend also does not have a genitive case-ending. The names of kings, when inscribed on coins, often end in the genitive singular. It appears that *Bhāgila* was the name of a city. Coins bearing the names of a large number of cities like Tripurī, Vārāṇasī, Pushkalāvatī, Ujjain, Eran, Kapiśā, etc. have been found in India. It is only the name of a city, when inscribed on a coin, that has no honorific affixed to it. And the case-ending of the names of cities occurring in a number of inscriptions further supports my view that the legend *Bhāgilāya* stands for the name of a city known as Bhāgila. Recently coins bearing the legend *Kurarāya* have been found near the findspot of the *Bhāgilāya* coins. The city of Kurara, of which *Kurarāya* appears to be the dative singular form, is mentioned in a number of Sanchi inscriptions[3]. I hope to publish the coins of the city-state of Kurara very soon. This supports my view that *Bhāgilāya* stands for the name of the city of Bhāgila, and if *Kurārāya* is the dative singular of Kurara, *Bhāgilāya* is the same case-ending of the

1. *A.S.W.I.* Vol. V, pl. LI.

2. *A. S. R.* (Cunningham), Vol. X. pl. XXIV-15; Cunningham; *Coins of Ancient India*, pl. XI-18.

3. Marshall & Foucher : *Monuments of Sanchi*, Vol. I, pp. 323 ff, Nos. 360, 722, 602, 619, 716, 243, 239, 235, 531, 598, etc.

city of Bhāgila.[1] As the *Bhāgilāya* coins have been found in the same region as the *Kurarāya* coins, it is not unlikely that the city of Bhāgila was situated not far off from the city of Kurara and also Sanchi. At present I am not in a position to identify the city of Bhāgila of these coins.

Our coins add the name of another city-state of Ancient India to the list already known.[2] It further suggests that after the death of Aśoka, the Great, authority did not immediately pass on to the Śuṅgas. Before the Śuṅgas rose to power, a number of independent city states divided a part of the Maurya Empire amongst themselves. Democracy, it appears, was inherent in the social structure of Ancient India in the centuries preceding and following Christ, and the Empire of Aśoka collapsed like a house of cards after his death, because the people were not familiar with that kind of political structure. Centuries old traditions of local democracy and particularism reasserted over the ideas and structure of the Empire, which Chandragupta Maurya had established hardly a century before.

THE ŚAIVA INFLUENCE.

What is more significant about the *Bhāgilāya* coins is that they so prominently indicate the Śaiva influence with their prancing bull, the *vāhana* of Śiva; the *Vaṭa* tree under which Śiva is said to have performed his austerities; the river symbol, probably representing the sacred river Gaṅgā and the lotus flower. The evidence of the coins further suggests that it was not the Śuṅga Pushyamitra who was responsible for the revival of Brahmanism, as would appear from the Buddhist tradition, but that the revival of Brahmanism took place before the Śuṅgas actually came to power. The Buddhist traditions in this context appear to have more of propaganda, rather than,

[1. Proper name of the city was not Bhāgila but Bhāgilā, feminine noun ending in ā; Bhāgilāya is Prākṛita genitive singular of Bhāgilā; Bhāgilāya means "Coin of the city of Bhāgilā." Compare other legends of the city coins, *Majhamikāya Śibi-jana-padasa*, 'A coin of Śibi republic of the city of Majhamikā. *Ante*, Vol. IX, p. 52. A. S. A.]

It is not unlikely that the name of the city was Bhāgilā as proposed by Dr. Altekar. I have preferred to call it Bhāgila because *Kurarāya* and *Kurarasa* occuring in two Sanchi inscriptions could be the dative singular and the genitive singular forms respectively of the city name Kurara, which also occurs in its dative singular form *Kurarāya* on coins. On the analogy of the legend Kurarāya occuring on the coins of the city of Kurara, I am of the opinion that *Bhāgilāya* of the coins published here was the dative singular form of Bhāgila and not Bhâgilâ as suggested by Dr. Altekar. The texts of the two Sânchi inscriptions referred to above runs as follows: (No. 716,) *Badhakasa: Kurarasa bhichu[no] dānaṁ* (the gift of the monk Badhaka of (Kurara) and (No. 602), *Kurarāya Pusa[da]tāya dānaṁ* (the gift of Pusadata of Kurara)—Marshall : *Monuments of Sānchi*, Vol. I, pp. 372 & 358. Author.

2. *J. N. S. I.* Vol. XIII pp. 42 ff.

historical value. The testimony of the coins, of course if the date assigned to them by me is correct, would add to the evidence absolving Pushyamitra Śuṅga of the guilt of persecution of the Buddhists and of shedding their blood for the revival of Brahmanism.[1] They indicate that the revival of Brahmanism was a feature of the period immediately following the death of Aśoka, which brought about an abrupt end of his missionary activities. Buddhism of Aśoka did not survive even for half a century after the death of its greatest patron and propagator. It disproves the view that the revival of Buddhism highly smelt of blood and persecution. Brahmanism with its peasantry and pompous ritualism always had a mass appeal and Buddhism with its puritanical code of conduct and a creed incomprehensible to the masses remained unintelligible to them; if it spread far and wide during the period of Aśoka, it was for the simple reason that it had been patronised and propagated by 'their' king, for whom the masses in India always had a great veneration.

1. Raichaudhury: *Political History of Ancient India*, 5th Edn.. pp, 389 ff.

DISCOVERY OF THE GOLD COINS OF ŚILĀHĀRAS OF KOLHAPUR

BY DR. MORESHWAR G. DIKSHIT, PH.D., SAGAR

[Pl. IV. 13—14]

The two gold coins published here were found in the excavations on the Brahmapuri mound near Kolhapur, by Dr. H. D. Sankalia and the present writer in 1946. The excavations revealed the following strata, which were very well defined by the association of pottery, coins and other objects of antiquarian interest.

1 Post-Bahmani or the period of Aurangzeb
2 Bahmani
3 Śilāhāra
4 Post-Śātavāhana
5 Śātavāhana

While the buildings, coins, beads, pottery, terracotta figurines and other objects found in each stratum have been described in a fuller Report[1] on the Excavations, I publish here, with the permission of the authorities of the Deccan College Research Institute, Poona, the two gold coins of the Śilāhāras of Kolhapur, in view of their unusual interest and in order to bring them to the notice of a wider circle of scholars interested in numismatics.

The coins occurred in a stratum which lay immediately below the layers in which Bahmani coins were found, and the buildings of the post-Śātavāhana period buried underneath it.

The coins (Serial Nos. 732 and 1268) are circular in shape with a diameter of about half an inch and weigh 22·5 grains each. To describe these first :

Obv : Triśūla (trident) without handle; Sun and Moon in the intervening space between the forks.
Rev : Figure of a standing Garuḍa, facing with legs bent; with a flowing banner in his left hand; and a serpent in the outstretched right hand.

Pl. IV. 13—14.

As these coins are uninscribed and bear no legend on them, there is no internal evidence to assign them to any particular dynasty, but their stratigraphical position, as already stated, helps us to place them in the intervening period between the Later Sātavāhanas and the Bahmani rulers. I have assigned them to the Śilāhāra Dynasty of Kolhapur for the

1. Sankalia and Dikshit, "Excavations at Brahmapuri (Kolhapur), 1946", Deccan College Monograph Series No. 9, Poona, 1955, Price Rs. 32.

following reasons :—

(1) The figure of the Garuḍa on the reverse was the emblem on the banner (*Suvarṇa-Garuḍa-Dhwaja*) of the Śilāhāra Dynasty, a branch of which family is known to have ruled over Kolhapur. Seals on the several copper-plate grants issued by the kings of this dynasty had identical figures of a *Garuḍa*.

(2) The Trident on the obverse is exactly identical with a similar figure obtained in an engraving on the Miraj plates of Śilāhāra Mārasiṁha, Saka 980 (*A.S.W.I.*, X, Plate opp. page 102).

Against this attribution it might be argued that the *Suvarṇa-Garuḍa* (Golden Eagle) was the emblem on the banner of the Rāshṭrakūṭas, the overlords of the Śilāhāras, and that these coins could have been issued by them as well, since the period indicated by the stratigraphy is a very long one and it also covers the long reign of the mighty rulers as the Rāshṭrakūṭas. Though the argument would be a very weighty one, in the absence of any legend on the coins, the long association of the Śilāhāras with Kolhapur which was their capital, makes one think that the site of the excavation which is mentioned in one of the copper plate grants of this dynasty,[1] would be the most natural place where Śilāhāra coins should be found. Moreover several exactly similar coins are known to have been found at a place called Bid, 7½ miles S. W. of Kolhapur, a few amongst which were examined by me with the local shroffs at Kolhapur.

Since no Rāshṭrakūṭa coins have hitherto been recorded[2] with which the present specimens can be compared, the fabric of the coins also is an important factor in determining their period. These small gold coins have a remarkable affinity with the gold coinage of the contemporary Kadamba kings of Goa[3] and would therefore suggest a date later than the 10th Century A.D. In the light of the above discussion, therefore, it would not be far wrong to ascribe these coins to the Śilāhāra dynasty and if this assumption is correct, these could be the first gold coins of the Kolhapur Branch[4] of the Silāhāras known so far.

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1. Kolhapur Plates of Gaṇḍarāditya, Saka 1048, (*Epi. Ind.*, XXIII, pp. 28). It is also noteworthy that the place Bid, which in reality means a Camp in Kannaḍa, is mentioned in other plates of the Śilāhāras of Kolhapur. (*Epi. Ind.*, III, p. 215).

2. The silver coins of Krishṇarāja, hithereto attributed to the Rāshṭrakūṭa ruler, are now shown to have been issued by a Kalachūri ruler of the same name (cf. *J.N.S.I.*, III, pp. 21-24).

3. Particularly with regard to their size and the figure of the trident appearing on the coins of Jayakeśi (*J.N.S.I.*, X, pp. 88-90).

4. Silver coins issued by Chhittarāja, belonging to another colateral branch of the Śilāhāras at Thana, are already known). (*J.R.A.S.*, 1900, p. 118 Plate facing page 97, No. 18).

A NEW COIN-TYPE OF VĀSISHṬHĪPUTRA.

By Miss Padma Altekar, M.A., Patna

[Pl. II. 18]

The coin being published in this paper was discovered by Mr. V. C. Mudliar on 5. 1. 1952 at Amravati, the ancient city in Andhradeśa, on the bank of the river Kṛishṇā. He sent it to my father Dr. A. S. Altekar, for examination and the latter acquired it for the coin cabinet of the Patna University. I am now publishing it in this *Journal*.

This coin is of great numismatic interest and was obviously issued either by a Sātavāhana king or by one of his feudatories. I shall first describe the coin.

Metal, lead ; size, round, 1·2″ in diameter.

Weight, 370 grains.

Obv. Above a platform horse standing to right ; in its front a standing human figure, probably a female, its head not on the flan. A symbol over the horse resembling the Mauryan letter *yya*.

Circular legend, apparently beginning at XII, is uncertain. It will be discussed below.

Rev. Chaitya with four tiers, the lower one with four, the second with three, the third with two, and the fourth with one arch, each arch having a dot in it. To the left of the Chaitya, a tree in railing with nine leaves; the sun between the Chaitya and the tree and a crescent above the Chaitya. Below the Chaitya, a river represented by two lines enclosing an undulating one.

Pl. II. 18

It is important to note that the obverse of the present coin is similar to the obverse of the lead coins found in Anantpur and Cuddaph districts and published in *B.M.C.A.K.*, Pl. V. Nos. 105-6. In both the cases we find the horse standing to right and a circular legend. Both have got Brāhmī double *yya* above the horse. But the Anantpur coins have got an object like a bird above the *yya*, while such is not the case with the present coin. Further there is no human figure in front of the horse on the Anantpur coins, as we find on the present one.

It is further important to note that the obverse of the present coin is also similar to the obverses of the lead coins of Gautamīputra-Śrī-Yajña-Sātakarṇi found in Andhradeśa, published in *B.M.C.A.K.*, p. 148-153 and Pl. VI, No. 148. In both the cases we find the horse standing to right. But on Yajñaśrī's coins, there is a crescent above the horse, which we do not find on the present coin. Again, there is a human figure in front of the horse on the present coin, while such is not the case with Yajñaśrī's coins. Of course there is some object in front of the horse on Yajñaśrī's coins, but what it is, we do not know. It is possible that we may be having there mere traces of the legend. Both the coins have a circular legend.

As regards to the reverse side, it is important to note that it is similar to the reverse side of Kolhapur coins of the Bow and Arrow type. In both the cases we find the Chaitya with ten arches in four tiers and a river represented by two straight lines. The lead coins of Kolhapur have also a tree in railing to the left of the Chaitya, though it appears on its top on the copper coins. Both show a crescent above the Chaitya. But there is no Sun on the Kolhapur coins, which we find on our specimen.

Who was the issuer of the coin?

The legend of this coin is difficult to read. At V *sa ṭha* is clear and hence it is certain that the whole word is *Vāsiṭhī-putasa*. The following letter *sa* is blurred. After this letter the next letter is *ra* and it is followed by what looks like *jña*. Between X and XII there are some letters; of these the first looks like *pa* or *ha*. The next two letters look like *ra* and *ta* on the original coin, but not on the plate.

We already know that there were five Sātavāhana kings with the metronymic Vāshiṭhīputra, namely,

(1) King Vāsishṭhīputra Śrī Puḷumāvi,

(2) King Vāsishṭhīputra Śiva-Śrī-Sātakarṇi.

(3) King Vāsishṭhīputra Śrī-Chandra-Sāti

(4) King Vāsishṭhīputra Srī-Sātakarṇi

(5) King Vāsishṭhīputra Viḷivāyakura.

Can we assign the present coin to any one of them? If we suppose that Vāsishṭhīputra is followed by *rajño*, then this coin cannot be assigned to any one of the above kings, for in none of the coin legends of the above kings, Vāsiṭhīputra is followed by *rajño*.

Further I have already stated that at X on the original coin *ha* or *pa* is clear, and it is followed by *ra* and *ta*. On the

Sātavāhana coins of Anantpur, referred to above, *ha* is clear and hence Rapson hesitatingly suggested that the coins may have been issued by Hāritīputra. It is possible that the present coin may have also been issued by Hāritīputra. But the difficulty is that a king cannot have two metronymics Hāritīputra and Vāsishṭhīputra. On all other Sātavāhana coins so far found, we find the king having only one metronymic, and hence the coin cannot be assigned to Hāritīputra.

If we assume that *Vāsiṭhīputra* is followed by *sa*, the faint traces of which can be seen on the original coin, then it is certain that the next word after Vāsiṭhīputa is *sara* (*siri*). But after *sara* the next letter is again blurred. Thus in the present state of our knowledge, we cannot say anything definite about the issuer of the present coin.

EDITOR'S NOTE.

The extant traces of the legend do not enable us to identify the issuer with any of the five Vāsishṭhīputras mentioned above. He may well have been a different ruler.

The combination of the types on the present coin is worth noting. The reverse device was so far known to be occurring only on the coins from Kolhapur. We now find it on a coin found at Amaravati. It is not very likely that a lead coin from Kolhapur could have travelled all the way to Amaravati. The obverse device was known to be prevailing on some coin-types in Andhradeśa and Anantpur district, but it was not known to be associated with the reverse device of the Kolhapur coins. It is not impossible that the present piece may have been an issue of a Sātavāhana feudatory with the metronymic of Vāsishṭhīputra, ruling probably in Andhra country, who combined the obverse device of a well known local coin-type with the reverse of the Kolhapur type. Had the find spot of the coin been somewhere in Karnatak, we could have located the ruler in that province and assumed that he was combining the obverse device of a Karnatak type in Anantpur with the reverse device of a Mahārāshṭra type in Kolhapur. The time of this ruler can be some time in the 2nd century A.D.

A NEW SILVER COIN OF CHASHṬANA AS MAHĀKSHATRAPA

BY DR. H. V. TRIVEDI, CURATOR, INDORE MUSEUM.

(Pl. I, 5)

Coins of Chashṭana as Mahākshatrapa are rare, only five of them being registered by Rapson in his *B. M. C.*, pp. 73 ff. and four illustrated on Plate X thereof. They are all of one and the same type. The present specimen, which is illustrated on **Pl. 1, 5,** shows some important variations which are well worth noting. It is from the private collection of Mr. N. R. Advani, Indore, who obtained it at Ujjain, like most of the specimens of his cabinet.

The coin is one of silver, round in shape with a diameter of ·6″; it weighs 29 grains. On the obverse it bears the bust of the king to right and traces of corrupt Graceo-Roman legend, intended to stand for RANNIW... CIACTANCA; letters are corrupt and serve only the purpose of an ornamental fringe. Greek had become even less intelligible in the days of Chashṭana than it was in the days of Nahapāṇa. The reverse shows a *chaitya* of six arches on a platform and surmounted by a crescent, with a rayed sun on the left and a crescent on the right. Below the platform are the traces of what must have been a wavy line as on other issues of the prince. There is a circular Brāhmī legend which commences at XII and which is *Rājño Ma*[*hā*]ksh*atrapasa Ghsamotika-putra*[*sa Chashṭanasa*]. It means that '(the coin is) of the Mahākshatrapa Chashṭana, a son of Ghsamotika.'

The last five letters of the legend are blurred, but they are distinct enough to show[1] that they contain the name of the prince in the Brāhmī script, bringing the legend right up to XI and thus leaving no space for the Kharoshṭhī characters *Chashṭanasa*, which also appear on all the specimens known so far, in addition to the name in Brāhmī.[2] This is what makes the present piece unique.

[1. The photograph illustrated shows the lower part of the conjunct *shṭa* at X, thereafter there are traces of *na* and *sa*. A. S. A.]

2. I doubt Rapson's reading of the legend on No, 262 on which it really commences at XII, as on the other specimens of the type, and not at VIII as stated by him. Moreover, the legend also shows traces of . Kharoshṭhi letters, and as such, the coin shows no variation. My statement is supported by the illustration of the same coin in Cunningham's *C.M.I.*, pl. 1, 6, where it is more distinct than in Rapson's *B. M. C.*, Pl. X.

In type, size, shape, weight and legend the present specimen bears resemblance to the silver coins of Chashṭana as Mahākshatrapa ; but it differs from them in two other important respects, viz. (1) the interchange of the position of the sun and the crescent, and (2) the number of arches forming the *chaitya*. The exceptional arrangement of the sun on the left and of the crescent on the right makes its first appearance on the coins of Chashṭana's great-grandson Rudrasiṁha I, and it was later on continued by two of his successors, viz. Dāmasena and Dāmajadaśrī[1]. Rudrasiṁha's coins of this type bear the date Śaka 110 or 188 A.D. ; and the present coin showing the exceptional arrangement of the interchange of the positions of the sun and the crescent and struck by the founder of a new dynasty about sixty years earlier may be historically important. It is also interesting to note that the sun on our coin shows eight rays, as we find on the coins struck by Rudradāman I[2], unlike the one with sixteen rays as generally seen on those issued by Chashṭana.

The six-arched *chaitya* appearing on the reverse of the present specimen is in no way less interesting. We know that the *chaitya* symbol was introduced into the reverse type of the Western Kshatrapas during the reign of Chashṭana who borrowed it from the coinage of the Sātavāhanas ; and as conjectured by Rapson, this may have been due to the former's conquest of some of the districts of the latter[3]. But the *chaitya* presumed to have been borrowed by him was one of three arches, the six-arched *chaitya* being unknown on the Sātavāhana coinage till before the reign of Gautamīputra Śrī-Yajña-Śātakarṇi[4], who was later than Chashṭana by at least about twenty years, and who may have borrowed the type of the six-arched *chaitya* from Chashṭana who predeceased him. All these considerations lead us to presume that the Sātavāhana ruler was not the originator of the change of three arches of the *chaitya* to six ; its attribution should really go to Chashṭana, as shown by the present coin.

1. Cf. Rapson's *B. M. C.*, pp. 90, 108 and 116 respectively .
2. *Ibid.*, pl. X. 271.
3. *Ibid.*, introd., p. cxv.
4. *Ibid.*, pp. lxxii f.

A NEW TYPE OF ŚĀṆA COIN.

By Dr. V.S. Agrawala, Banaras Hindu University.

[Pl. III. 23-24]

1. Material.

Shri B. N. Nath, Curator Orissa Museum, has published in the last issue of this *Journal* a note on the recent numismatic discoveries in Orissa.[1] This note refers to a hoard of one hundred and sixty-two punch-marked coins, of which one hundred and thirty-nine are said to be well preserved. The coins had been preserved in the Sonepur State Treasury and must have been discovered some years back in the territory of that small state extending on two sides of the Mahānadī. These are now deposited in the Orissa Museum, Bhuvaneśvara.

2. Symbols

The coins are thin pieces of silver on the obverse of which, as stated by Shri Nath, a group of only four symbols is stamped. There are no reverse symbols. The symbols are (1) elephant, (2) standing bull, (3) a pair of bulls and (4) a symbol consisting of a pellet surrounded by a girdle of dots. (See *ante*, Vol. XIII. Pl. V. 13-17). The fact that there are four symbols in each group stamped on the obverse at once focusses attention on these coins. They are distinct from the standard type of silver punch-marked coins bearing five symbols in a group. The latter seem to have been introduced in the Nanda period and continued as the distinctive feature of the entire punch-marked coinage in silver, minted during the Maurya period also. The Nandas are said to have standardized their weights and measures, and I believe their coinage also, in order to serve the needs of a big empire. In the field of coinage their innovation was to introduce the five symbol groups. Amongst these groups also the sun and the six-armed symbols are a constant factor, as is well known. Now, those coins which were of an earlier period show two distinguishing features, namely that the number of symbols in each group is only four, and secondly the sun and the six-armed symbols are conspicuous by absence. In the orientation of these four symbols a certain scheme was followed. This was not the case in the series of five symbols, which were stamped without any definite plan. At least none has been observed so

1. B. N. Nath, Recent Numismatic discoveries in Orissa, *J. N. S. I.*, Vol. XIII, pt. 1 (June 1951), pp. 92-93.

far on the coins of either the Nanda or Maurya period. Evidently the group of four symbols on the present coins is allied to other such groups, which occur on coins of the earliest series.

3. Period.

As regards the period of these coins, they should be placed prior to the period of the first minting of the standard silver Kārshāpaṇas of five symbol groups. This period may be as early as the fifth century B. C. There is another possibility also. Prior to the introduction of the standard Kārshāpaṇa coins for circulation in the empire of the Nandas, punch-marked coins were being minted with different symbols in each country (janapada) separately, i.e. they were a local coinage only. This is indicated by the symbols on the coins of the various hoards discovered at different places, bearing only four obverse symbols. These local currencies may have persisted for some time longer. In that case the present coins and others with only four symbols may be assigned to the fourth century B. C., but not later. However, there is every probability that such coins really belong to an epoch earlier than the Mauryan period.

As regards the identification of symbols, one special point deserves particular notice. The symbol, which Shri Nath describes as two bulls standing on the two sides of a line, is really that of a pair of bulls yoked to a plough. Of the five coins illustrated by Shri Nath (in his article Pl. V, Nos. 13-17) the one under no. 13 shows the plough distinctly. The beam (*halīshā* or *īshādaṇḍa* in Sanskrit) is in the middle and the plough (*hala*) is shown near the back of the two bulls. There is a small knob at the other end of the beam. I illustrate this symbol in **Pl. III. 24**.

The plough with a pair of yoked bulls must have been considered an auspicious symbol. We find from an illustration cited on Pāṇini's *sūtra* प्रकृत्याशिषि (VI, 3, 83) that the possession of a plough and bulls was an object of benediction conferred on the owner (स्वस्ति भवते सगवे सवत्साय सहलाय, *Mahābhāshya*, Kielhorn's edition, Vol. II., p. 171).

Another fact of greater significance is that this particular symbol, which we name as *go-lāṅgala* on the analogy of *gadabha-naṅgala* of the Hāthigumphā inscription of Khāravela, also occurs on the silver punch-marked coins of the Shingvaram hoard found in the Āndhra country. One specimen bearing this symbol was included in the collection of B. Durga Prasad and is now deposited in the Lucknow Museum. Besides this another symbol relating to the threshing of corn on the threshing floor was also noticed on the coins of the Shingvaram

hoard[1]. A coin with that symbol was brought to me by the late B. Jai Krishna Agrawal and was acquired for the Lucknow Museum[2]. Both these symbols were published by me in the Vikramāṅka Special Number of the *Nāgarī Prachāriṇī Patrikā,* Banaras (Vol. 49, p. 256). They are reproduced with this paper ; see **Pl. III. 23-4.**

It appears that this particular symbol was stamped on the punch-marked coins as a local symbol of the Kaliṅga country. It has not been seen on any coin found elsewhere. As regards orientation, the Bull-and-Plough symbol faces the elephant symbol. The single Bull or Cow faces the Dot-girdled Pellet symbol.

4. Weight and Identificntion.

The weight of these coins as given by Shri Nath is 19·2 grains. The antiquity of the coins, already indicated by the number of symbols being four, is further supported by this weight which has no relation with the weight of the Kārshāpaṇas of 32 *rattis* or 56 grains. Fortunately with the help of Pāṇini's *Ashṭādhyāyī* and the *Mahābhārata* it is possible to identify these coins more precisely. In two of his *sūtras* Pāṇini refers to a coin called *Śāṇa.*[3] The following illustrations occur in Patañjali's *Mahābhāshya* to denote articles purchased for one and a half, two, three and five *Sāṇas* :

अध्यर्धशाणं । अध्यर्धशाण्यं ।
पंचशाणं । पंचशाण्यं ।
द्विशाणं । द्वैशाणं । द्विशाण्यं ।
त्रिशाणं । त्रैशाणं । त्रैशाण्यं ।

(*Mahābhāshya*, Kielhorn's
Edition, Vol. II, p. 350).

[1. From a short note published on this hoard by Mr. T. G. Aravamuthan in the *Transactions of the International Numismatic Congress*, 1936, pp. 393-400, it appears that this hoard contained more than 60,000 coins, as they weighed more than 10,000 tolas. Mr. Aravamuthan could get only 25 specimens for hurried examination ; he found them cup-shaped, *repousse*, and with four symbols only, which were the same as those described above by Dr. Agrawala. The coins varied in weight from 20 to 30 grains according to Mr. Aravamuthan's impression. The coin in the Lucknow Museum was probably from the Singavaram hoard. The same probably cannot be said of the 163 coins in the Sonepur treasury. Singavaram is in the Krishna district of Andhradeśa. It would appear that the Śāṇas of this type were the pre-Mauryan currency of ancient Kaliṅga and Andhra. It is a great tragedy that about 60,000 coins of this rare type should have been melted down. *A.S.A.*]

[2. I have seen the casts of the coins and the symbols are as shown in the drawings. Mr. M. M. Nagar, Curator, Lucknow Museum, was kind enough to send the casts, but they came too late to be included in the plate.—A.S.A.]

3. *Ashṭādhyāyī*, V. I. 15 ; VII. 3 17.

These ten words current in the language indicate the great popularity of the *Śāṇa* coin at one time.

The exact value and weight of the *Śāṇa* coin long remained unknown to me, until I came across the following passage in the Vanaparva of the *Mahābhārata* :

अष्टौ शाणाः शतमानं वहन्ति.......... ।

(134. 14, Poona edition.)

Eight *Śāṇas* make one *Satamāna*. This evidence links the *Śāṇa* coin to the *Satamāna* as its one-eighth part. We know from other sources that the *Śatamāna* coin was one hundred *rattis* in weight ; thus the theoretical weight of the *Śāṇa* coin was 12·5 *rattis* or 22·5 grains. This theoretical weight is well nigh confirmed by the weight of the present coins which is 19·2 grains. The *Sāṇa* was, in other words, an *Ashṭabhāga Śatamāna*. This is analoguous to the *Ashṭabhāga* mentioned in the *Arthaśāstra* as one-eighth of the Kārshāpaṇa series. As a matter of fact the whole gamut of sub-multiples associated with the silver Kārshāpaṇas was also true in the case of the silver *Śatamāna*, which preceded the Kārshāpaṇa currency. For example, we had the Kārshāpaṇa, Ardha-Kārshāpaṇa, Pāda, Ashṭabhāga and Māshaka in the Kārshāpaṇa series according to the *Arthaśāstra*. Pāṇini and the Jātakas also mention these five names under slightly varying forms e.g. Kārshāpaṇa, Ardha, Pāda, Dvi-māsha and Māsha in Pāṇini ; and Kārshāpaṇa, Aḍḍha, Chattāro-māsaka, Dvemāsaka and Ekamāsaka in the Jātakas. In the case of *Satamāna*, we similarly had the standard Śatamāna coin of 100 *rattis*, Ardha-Śatamāna of 50 *rattis*, Pāda-Satamāna of 25 *rattis*, Ashṭa-bhāga-Śatamāna or Sāṇa of 12½ *rattis*, and Ardha-Sāṇa of 6¼ *rattis*.

The *Śatamāna* represented an earlier coinage and had set up a model of sub-multiple coins, which was adopted as a matter of course for the Kārshāpaṇa also. Thus the present coins from remote Orissa found in the vicinity of the Mahānadī are distinguished by their particular local symbols, peculiar grouping of only four symbols on the obverse, the orientation of the symbols in the group, and represent the most ancient silver coinage in India being linked in weight to that particular class of heavy weight bent-bar silver coins known as *Satamāna*. Like the *Satamāna*, the *Śāṇa* coin also was indigenous both in its symbols and weight. It would be worth while, if Shri Nath gives us more information about the weights of the remaining coins in the hoard and also illustrates the symbols on some more well preserved specimens.

IDENTIFICATION OF KINGS SĀTAVĀHANA AND SATAKARṆI OF THE COINS

By Prof. V. V. Mirashi, Nagpur

While publishing the coins of some early kings of the Sātavāhana dynasty, Dr. S. L. Katare has criticised my view about the date of the king Sātavāhana, two of whose coins I published in this Journal some years ago. He proposes to identify the issuer of those coins with the *Kumāra* Sātavāhana of the Nāṇeghāṭ relievo figure inscription. He has also put forward some suggestions about the relationship of Śimuka, Nāganikā, Sati, and Sātavāhana, which deserve to be examined in detail. Although his detailed article on early Sātavāhana genealogy has not yet been published, he has given sufficient indication of his views in the last article published in this Journal.[1] I therefore propose to examine them at some length in this article.

Dr. Katare has objected to my identification of Sātavāhana of the coins with the founder of the Sātavāhana dynasty on the ground that 'the form of the letter *da* on the coins is later than that in the Nāṇeghāṭ inscription of Nāganikā'. He therefore identifies that king with *Kumāra* Sātavāhana of the Nāṇeghāṭ relievo figure inscription. Now, it has been pointed out by several scholars in the past that the palæographic evidence is not quite conclusive where the difference in age is of a few decades. Eminent epigraphists like Fleet, Kielhorn and Sukthankar have erred by centuries, not decades, in their estimates of the age of certain records on the evidence of palæography.[2] It is, therefore, risky to fix the date of any king on the evidence of a single letter on his coins. Besides, we notice that even in the same record, evidently written or engraved by the same person, the shapes of the same letters vary considerably. See, *e. g.*, the shape of the letter *d* in the large Nāṇeghāṭ inscription of Nāganikā, on which Dr. Katare has relied for his evidence. This letter has a clear curve open on the left in several places; see *e.g.*, *Īdasa* and *Chaṁda-sūtā-(yā)naṁ* in l. 1; but that curve has become shallow in some other cases; see, *e.g.*, *Vāsudevānaṁ* in the same line.[3] Take

1. *J.N.S.I.*, Vol. XIII, pp. 35 f. Also *Ind. Hist. Quart.*, Vol. XXVII, pp. 210. f.

2. See, e.g., their views about the age of the grants of the Vâkâṭaka Pravarasena II and Tivaradeva. They were referred to the eighth century A. D., whereas they are now proved to be of the fifth and sixth centuries A.D.

3. If Krishna Sastri's reading *Khadasiri* instead of *Vedisiri* is accepted, the letter *da* would show the upper curve in the larger inscription of Nāganikâ also. I have not however relied on it for supporting my view. I take *Vedisiri* as the correct reading.

again the letter *v*. This letter shows a circle below a vertical on the coins of Sātavāhana published by me, but in many places in the large inscription of Nāganikā it appears triangular; see, e.g., the second *v* in the same word-*Vāsudevānaṁ* in l. 1. Katare admits that it is triangular in the relievo figure inscription of Devī-Nāyanikā, but says that it *remains* circular in that of *Kumāra* Sātavāhana. On the evidence of this single letter he will have to place the label of Devī-Nāyanikā in a later age than that of the label of *Kumāra* Sātavāhana! I wonder if he accepts this conclusion! If the shape of *d* indicates that the coins of Sātavāhana are of a later age, that of *v* shows that they are earlier than the inscription of Nāganikā. Reliance on the shape of a single letter would thus land us into an absurd position. I am not, therefore, in favour of fixing the age of the king Sātavāhana on the palæographic evidence of a single letter like *d*.

What other evidence have we then on this point? An inscription in a cave at Nasik states that Kṛishṇa, who, according to the Purāṇas, was the brother and successor of Śimuka, belonged to the *Sātavāhana-kula*. A relievo figure inscription mentions *Rājan* Simuka Sātavāhana. The evidence of these two records shows that there was a person named Sātavāhana who founded the royal family called *Sātavāhana-kula* and that both Śimuka and Kṛishṇa were descended from him. Had he not been a renowned person of power and prestige, his descendants would not have taken pride in mentioning the family name derived from him. He may have preceded Śimuka and Kṛishṇa by two or three generations. I would ascribe the coins with the legend *Raño Siri Sādavāhanasa* to him. Another relievo figure inscription no doubt mentions one *Kumāra* Sātavāhana, but we do not know if he ever came to the throne. The Purāṇas are silent about him and the palæographic evidence of the coins is not conclusive. In these circumstances I think it is better to attribute the coins to the founder of the dynasty than to this prince.

In his articles Dr. Katare has made several ingenious suggestions about the relations of Śimuka, Nāyanikā, Sātakarṇi and Sātavāhana which I shall next take up for examination. Dr. Katare's conclusions are as follows:—

(i) Nāyanikā was the wife of Śimuka, not of Sātakarṇi.

(ii) She was acting as a regent for her minor son Sati mentioned in the large Nāṇeghāṭ inscription, who is none other than Sātakarṇi mentioned in the relievo figure inscription.

(iii) Śrī-Sāta of the coins is also the same as Sātakarṇi.

(iv) Prince Sātavāhana of another relievo figure inscription was his brother.[1]

For an examination of these conclusions we must study the large Nāṇeghāṭ inscription very closely. This record, though mentioned several times, has been edited only once, viz., by Dr. Bühler in the *Archæological Survey of Western India*, Vol. V. The plates accompanying Dr. Bühler's article, like those of the Ajaṇṭa and Gulwārā cave inscriptions in *A.S.W.I.*, Vol. IV, appear to have been worked up by hand. A revised edition of this record together with a mechanical facsimile is very desirable. In the absence of it I am utilising Bühler's facsimile, though its accuracy has been called into question by H. Krishna Sastri in regard to certain names occurring in it.

In support of his first conclusion Dr. Katare has put forth two arguments : (i) In the relievo figure inscription the name of Nāyanikā precedes that of Sātakarṇi because she was his mother ; and (ii) in the large Nāṇeghāṭ inscription the name of the husband of Nāyanikā ends in *śrī,* which is also noticed in the relievo inscription of King Simuka while the name of Sātakarṇi nowhere ends in *śrī.* There is not much force in the second argument ; for *śrī* or *Śrīmat* as an honorific suffix is noticed at the end of several names, both in inscriptions and coins. In the large Nāṇeghāṭ inscription it occurs not only at the end of the last name of Nāyanikā's husband, but also at the end of the names Vedi and Sati. (Cf. *Vedisirisa raño* in l. 1 ; *Vedisiri-mātu* and *Satino sirimatasa* in l. 4). Its omission in the relievo figure inscription of Nāyanikā and Sātakarṇi is quite accidental. If Sati is the same as Sāta as supposed by Katare, we have the full word *sirimata* used in connection with his name. The first argument is more plausible. It can be supported by citing the analogous instance of the Bherāghāṭ temple inscription of Vijayasiṁha, which mentions *Mahārājñī* Gosaladevī, *Mahārāja* Vijayasiṁha, and *Mahākumāra* Ajayasiṁha in this order.[2] Gōsaladevī was the mother of the Kalachuri king Vijayasiṁha and grandmother of the prince Ajayasiṁha. In this case also the dowager queen is mentioned before the reigning king who was her son. There are, however, certain difficulties in accepting this conclusion of Dr. Katare. Before stating them we must study carefully the first few lines of the Nāṇeghāṭ inscription. I give below Bühler's transcript of the first five lines for ready reference :—

१ [ओं नमो पजापति]नो धंमस नमो ईदस नमो संकंसनवासुदेवानं

1. In his article in *I.H.Q.*, Vol XXVII, p. 213, Katare says that Sātavāhana was probably a son of Śatakaraṇī. He appears to have changed his opinion since.

2. Banerji, *Haihayas of Tripurī* etc., p. 42.

चंदसूतानं [महि]मा[व]तानं चतुंनं च लोकपालानं यमवरुनकुबेरवासवानं नमो कुमारवरस वेदिसिरिस र[ञो]

२ . . . . वीरस सूरस अप्रतिहतचकस दखि[नाप]ठ-[पतिनो] . . . .

३ मा . . . . बालाय महारठिनो अंगियकुलवधनस सगरगिरिवल[या]य पथविय पथमवीरस वस . . . य व अलह (?) . . . . सलसु य महतो मह . . . .

४ . . . . सिरिस भारिया देवस पुत्रदस वरदस कामदस धनदस वेदिसिरिमातु सतिनो सिरिमतस च मानुय सीम . . . . . . पथमय . . . .

५ वरिय . . . . अ [ना]गवरदयिनिय मासोपवासिनिय गहतापसाय चरितब्रह्मचरियाय दिखव्रतयंत्रसुंडाय यञा हुता धूपनसुगंधा य नियं....

Bühler translated the words नमो कुमारवरस वेदिसिरिस रञो as "Praise to Vediśrī, the best of royal princes! Of the King···" This translation is plainly incorrect. Bühler also must have felt that the construction was unusual. So he tried to justify it as follows :—"It seems to me that the queen described in the large inscription must have been ruling as guardian of her son the prince Vedisiri. For though, as has been shown, she is the chief person in the inscription, "the best of royal princes," Vedisiri is addressed in line 1 with *namo* "adoration to" or "praise to", and treated with the same reverence as the gods invoked in the beginning of the *maṅgalācharaṇa*. That fact points to his occupying a privileged and particularly high position." This is hardly convincing. There appears no reason why a prince who had not even come of age should be so highly adored or praised. In the whole range of Indian inscriptional literature this is the only instance of a prince being adored like a god in the beginning of a record incised during his minority. Rapson saw the absurdity of this construction and differing from Bühler, took *namo* in each instance with the preceding genitive[1]. He further remarked, "The inscription proper begins with *Kumārasa*[2] and in the hiatus Prince Vedi-śrī was probably described as the son of King Śrī-Sātakarṇi the Lord of the Deccan". Rapson's construction also is equally open to objection. In all ancient Prakrit and Sanskrit records *namo*

1. Rapson, *Coins of the Andhras* etc. (B.M.C.), P. XIV.

2. The inscription reads *Kumāravarasa* not *Kumārasa*. Again Rapson seems to have omitted *namo Pajapatino*, preceding *Dhammasa* though the traces of those words were visible in Bühlar's time. The last two *aksharas* can be read from his plates also.

occurs before the name of the deity adored. See, *e.g.*, the following :—

1 नमो अ[रि]हंतानं in the Hathigumphā cave inscription. *Ep, Ind.*, Vol. XX, P. 79.

2 नमो भगवतो देवराजसकतस···सवंञुनो in the Nāgārjunikondā inscription of Virapurushadatta. *Ibid.*, Vol. XX, p. 16

3 नमश्शिवाय in the Tālgunda inscription of Śāntivarman. *Ibid.*, Vol. VII, p. 31

4 नमो महादेवाय in Khoh copper-plate of Hastin, *C.I.I.*, Vol. III, p. 95.

It is needless to multiply instances. The word *namo* in the Nāṇeghāṭ inscription must, therefore, be construed with what follows and not with what precedes it. The correct meaning of *namo Kumāravarasa* is 'Adoration to Kārttikeya'. That Kārttikeya bore this name is clear from the name *Kumāravaradatta* of a king, occurring in the inscription recently edited by me[1]. *Vedisirisa* which follows must plainly be construed with *raño* and the expression taken to mean 'during the reign of king Vediśrī.'[2] The words in the second line वीरस सूरस अप्रतिहतचकस दखिनापठपतिनो evidently continue the description of the same king Vediśrī and describe him as brave, irresistible and the lord of Dakshiṇāpatha. The words lost at the end of line 2 probably recorded the regnal year, season, fortnight and day when the inscription was incised. Compare similar recording of the date in the inscriptions of Vāsishṭhīputra Puḷumāvi in the Karle and Nasik caves. Then follows the description of the queen who is the central figure in this inscription. Her name is unfortunately lost, but she was probably Nāyanikā (or Nāganikā) as conjectured by Bühler. She is described in the following words :—सिरिस भारिया देवस पुत्रदस वरदस कामदस धनदस वेदिसिरिमातु सतिनो सिरिमतस च मातुय · · · · · · · · · ·

Bühler translated this as follows : "(Who is the) wife of... śrī, the lord who gives sons, boons, (*the fulfilment of*) desire and wealth, (*who is the*) mother of Vediśrī and the mother of the illustrious Śakti". This rendering also is open to several objections. The देवस पुत्रदस वरदस etc. cannot be construed with *-siris* from which they have been separated by the intervening word *bhāriyā*. The description of the king, whose wife Nāyanikā was, must have occurred at the end of line 3 and before *bhāriyā* in 1. 4. The words that follow *bhāriyā* evidently describe Vediśrī. In *Vedisiri-mātu* we have evidently a *sāpeksha-samāsa* such as is noticed not seldom even in Sanskrit

1. *Ep. Ind.*, Vol. XXVII, Pl 51. Cf. the similar name वीरपुरुषदत्त

2. As I have shown before in this *Journal.* (Vol. III, p. 66), adjectives and words in apposition often follow those which they qualify.

inscriptions. The words देवस पुत्रदस वरदस कामदस *etc.* are in apposition to or qualify वेदिसिरिस which has been compounded with *mātusa*. Vediśrī, who was called *rajan*, is here described as *deva*, both the words meaning 'a king'. The queen who caused the several sacrifices to be performed and made munificent gifts to the officiating priests and others is here described as the mother of two princes, the reigning king Vediśrī and the prince Śaktiśrī. There is no mention of her being a regent for either of them.

The queen-mother is further described as one who fasted during a whole month, who (*even*) in her house (*lived like*) an ascetic, who remained chaste, who was well acquainted with initiatory ceremonies, vows and offerings. This description also indicates that she was very old at the time. She had lost all interest in worldly matters, and was devoting herself to religious practices. Such a lady is hardly likely to busy herself with the governing of an extensive kingdom like that of the lord of Dakshiṇāpatha.

The large Nāṇeghāṭ inscription was, therefore, *not* incised during the minority of any prince and does *not* describe any queen as regent for her minor son. It may be noted that Pandit Bhagwanlal, who first deciphered this inscription, took it as referring to the reign of *King* Veliśrī, though he identified him with Sātakarṇi of the relievo figure inscription.[1] Bühler, who was misled by the word *Kumāravarasa*, took the record as incised during the minority of Vediśrī, with the queen mother Nāyanikā acting as regent. This view has been adopted by all the writers who have written on the history of the Śātavāhanas, such as Rapson, Raychaudhuri, Gopalachari and D.C. Sircar. The foregoing detailed examination of the initial portion of the large Nāṇeghāṭ inscription must have made it clear that it was incised during the reign of king Vedisrī.

Divergent views have been expressed about the identification of the husband of Nāyanikā, Vediśrī and Satiśrī (or Śaktiśrī), mentioned in the inscription. The name of the first of these is completely lost and has to be restored conjecturally. Bhagvanlal identified him with Sātavāhana (i. e., Śimuka Sātavāhana) and the same view is now supported by Katare. We have seen above that of the two reasons stated by the latter in favour of this view, the first appears plausible though the second has little weight. It would, however, presupposees that Nāyanikā who was already very old during the reign of king Vediśrī, survived him and got the relievo figures carved in the reign of her second son Sati whom Katare identifies with *Rājan* Sātakarṇi of the relievo figure inscription. This seems

1. *J. B. B. R. A. S.*, Vol. XIII, p. 312.

improbable. In the present state of our knowledge it appears better to identify the husband of Nāyanikā with Sātakarṇi I, mentioned in the Purāṇas. He may, however, have been the son of Simuka, not of Kṛishṇa as stated in them.

It may look strange that neither Vediśrī nor Satiśrī is represented in the gallery of relievo figures. We must, however, remember that two statues and the labels over them have now been completely lost. The order of the statues was as follows :— *Rājan* Simuka ; 2 *Devī* Nāyanikā and *Rājan* Sātakarṇi ; 3 *Kumāra* Bhāya- ; 4 and 5 (Names lost) ; 6 *Mahārathi* Traṇakayiro ; 7 Kumāra Hakuśrī and 8 Kumāra Sātavāhana. The most plausible interpretation of these appears to be that they were caused to be carved by the queen during the reign of her son Vediśrī. The first statue is of her father-in-law Śimuka Sātavāhana ; the second—a dual one—of herself and her husband ; the third was of her son Bhāya- who was dead at the time ; the fourth and fifth were of two other sons, the reigning king Vediśrī and prince Satiśrī, now mutilated ; the sixth was of her father and the seventh and eighth of the princes Hukuśrī and Sātavāhana who were probably sons of Vediśrī[1]. The name of the *kumāra* Bhāya- has been omitted in the large Nāṇeghāṭ inscription probably because he was dead at the time.

Dr. Katare has drawn attention to a coin with the legend *sātisa* which closely resembles in its reverse type another with the legend *Sātakaṇisa*. He identifies this Sāti with the prince Sati mentioned in the large Naṇeghāṭ inscription and both of them further with king Sātakarṇi I. He does not, however, explain why the prince's name was shortened into Sati in the large Nāṇeghāṭ inscription. We know of course that names are sometimes shortened on coins for want of space ; there was, however, no such difficulty in the large Nāṇeghāṭ inscription. I suggested previously that the coins with the legend *Sātisa* may have been struck by Sātavāhana ; but in view of the clear mention of Sati in Nāyanikā's inscription it seems better to hold that they were issued by Sati who succeeded Vediśrī.

It now remains to say a few words about the sacrifices performed by Nāyanikā. D. R. Bhandarkar thought that these sacrifices were performed by her as the *sahadharmachāriṇī* of her husband Sātakarṇi.[2] But the inscription is explicit on this point. It tells us clearly that some of them at least,

1. This suggestion has also been made by Gopalachari. See his *Early History of the Andhra Country*, p. 33. Rapson thought that one of the lost statues was of Kṛishṇa.

2. *Ind. Ant.*, Vol. XLVII, p. 72, n. 11. Bühlar thought that though the Brāhmaṇas were forbidden to act as priests for women, the prohibition did not apply to women who might be conducting the government of a state. We have seen, however, Nâyanikâ was that not occupying such a position at the time of the Nâṇeghâṭ inscription.

were offered by her while she was living like an ascetic in her house and was observing chastity (*brahmacharya*). The description shows that she was a widow at the time. It is not unlikely that some of these sacrifices like *Aśvamedha* were performed by her and her husband. This was probably stated explicitly in the lost portion in the beginning of line 6. Notice *rāyasa* which still remains in that line. Some others may have been offered by herself. This was also probably stated in the inscription. Notice *sayaṁ* (Sanskrit, *svayam*) in line 17 of the larger inscription. She must, of course, have got these sacrifices performed by the priests on her behalf, as is the custom even now.

TWELVE FORGED SILVER COINS OF THE KUSHAṆAS

By Dr. A.S. Altekar, Patna

[Pl IV. 1-12]

In January 1950, Mr. Uttam Singh Rao sent to me a short paper on 'Some unique silver coins of the Kushāṇas' for publication in this *Journal* along with a photographic plate of theirs, containing the facsimiles of twelve Kushāṇa coins. They were of the denominations of double staters, staters and quarter staters and bore the names and portraits of the Kushāṇa rulers Wima Kadphisis, Kanishka, Hüvishka and Kaneshko. By looking at the photographs, I suspected the genuineness of these coins, and it was confirmed by their recorded weights. I therefore requested Mr. U.S. Rao to kindly send the coins to me for their inspection and scrutiny, which he readily did. On examining the coins in the original, my suspicion was confirmed and it became quite clear that all the coins were forged from moulds originally prepared for forging gold coins of the Kushāṇas. It therefore became quite clear that the paper of Mr. Rao could not be published. I, however, felt that the ends of the numismatic studies justified a full discussion of these coins along with a clear elucidation of the reasons for branding them as forgeries, so that coin-collectors and scholars should not in future fall victim to the tricks of the coin forgers. Silver coins of the Kushāṇas are very rare and therefore the temptation to forge them for extorting fancy prices is very great. Hence this lot of 12 forged coins deserves to be fully exposed and published.

The coins were shown by Mr. Rao to Dr. V.S. Agrawala, then the Suprintendent National Museum, New Delhi. He made detailed enquiries about the manner of their acquisition and Mr. Rao stated that he was informed that they originally formed part of a hoard found in Pind Dadan Khan, later on deposited by a Muslim with a Hindu banker. It was from this banker that Mr. Rao purchased the present set in railway train; and the address of the banker is not now known to Mr. Rao. Mr. Rao showed Dr. Agrawala two coins of Kanishka of the Arooaspo type, one in silver and the other in copper, both of which showed pitted surface and air bubbles on the figure of the standing king. These were said to have been obtained from a Pakistani, also from Pind Dadan Khan. Mr. Uttam Singh Rao also showed Dr. Agrawala a gold coin of Huvishka facing

right, purchased from Mr. Ruplal, a Rawalpindi dealer now settled in Delhi, as also a silver coin of Alexander the Great. Dr. Agrawala felt that both these coins were also forgeries. Dr. Agrawala was good enough to transmit to me the above information for my guidance and I am publishing it in the hope that it may be of use to the coin collectors and Museum curators. There is no doubt that Mr. U.S. Rao has fallen a victim to the coin forgers.

Numismatists know full well how the metrology of the silver currency in ancient India followed quite a different standard from that of the gold or copper currency, Thus the Greek gold coins were struck to the standard of the staters, which weighed 133.2 grains or 12 obols of 11.2 grains each. The unit of silver currency was a drachm, weighing 6 obols of 11.2 grains; i.e. 67.2 grains. In the Indo-Bactrian series we get silver tetradrachms weighing about 265 grains and drachms and hemi-drachms weighing about 66 and 33 grains, but not diadrachms weighing about 132 grains, as that was the weight of the gold stater. Later on the weight standard of the silver coins was reduced and the Indo-Scythians and Indo-Parthians started issuing tetradrachms weighing about 150 grains and drachms about 37 grains. The vast majority of the silver coins acquired by Mr. Rao does not belong to either of these weight standards. I suspected that they were forged from dies made for forging gold coins, and my suspicion was confirmed by the data about the relative gravity of gold and silver, so kindly and readily placed at my disposal by Prof. G.P Dube, Head of the Physics Department of the Patna University.

The specific gravity of pure gold is 19. 32 and that of pure silver 10. 51 and that of copper 8. 93. Now out of Mr. Rao's silver Kushāṇa coins, Nos. 1, 2 and 3 are obviously of the size and shapes of the double staters in gold issued by Wima Kadphises. Their actual weights are 125. 8 grains, 130.7 grains and 123. 8 grains respectively. Silver coins of the weight standard of about 125 grains were not issued either by the Indo-Scythians or by the Indo-Parthians, whose tetradrachms weighed about 150 grains. The punch-marked coins followed the weight standard of 56 grains and so these pieces cannot be regarded either as double or as treble *paṇas*. We cannot thus at all account for the weight standard of these large silver pieces, if we assume them to be a genuine silver currency. But the mystery becomes clear, if we assume them to be silver coins forged from the moulds of gold coins. The specific gravity of pure silver is 10. 61, and that of the coin No.1 is 9.86, of No. 2 is 10.17 and of No. 3 is 9.60. So coin No. 2 is almost in pure silver and its volume in cubic

centimetres is ·4490. Now a coin of this size and cubic contents, if in pure gold, will weigh 234 grains and the normal weight of the gold double staters of Wima Kadphises is about 240 grains. We can thus satisfactorily solve the mystery of the weight of this piece by the obvious assumption that it was minted in silver from a mould made for gold pieces. In the same way, it may be pointed out that coins Nos.1 and 3, which actually weigh 130.7 and 123.8 grains respectively, would have weighed 234 and 224 grains respectively, if they were in pure gold. These weights again are in the vicinity of the double staters of Wima Kadphises. What holds good about the otherwise rather inexplicable weight of these three pieces, is also true of the weights of the remaining coins of this lot.

Can we assume that the moulds, from which these silver coins were forged, were ancient ones, intended to be used for the manufacture of gold coins by the mint-masters of Wima Kadphises, Kanishka, Huvishka aad Kaneshko, who appear to be the issuers of these coins ? I am afraid, not. The genuine gold coins of these rulers are die-struck ; they were not manufactured from moulds. So the moulds of the present silver coins were obviously fabricated by some modern coin-dealer, who desired to use them, primarily for forging gold Kushāṇa coins. Knowing that the silver coins of the Kushāṇas were very rare, the modern forgers conceived the idea of forging silver coins also from the same mould, hoping to get high prices for these rare types in silver. That is how these silver coins have come into existence.

As the types and legends on these coins are the usual ones, I do not propose to describe them in detail. I shall content myself by giving the reasons for pronouncing each piece a forgery.

COINS OF WIMA KADPHISES

Coin No. 1 ; Pl. IV. 1

Weight, 125.8 grains ; size, 1.1″

Obv : King standing and offering oblations.

Rev : Śiva standing by the side of the bull.

This piece is a forgery for the following reasons. (1) Its weight 125.8 grs. is irregular ; it would have been 231 grains, if the coin were in pure gold. Kushāṇa double staters usually weigh 240 grains. (2) The engraver has blundered in engraving long *o* in Basileon. Kharoshṭhi letters—*mahiśvarasa* are too widely separated from each other. (3) The coin has dull appearance and the figure of the king lacks in sharpness at the edges. (4) It has been deliberately hammered at III between the

letters of the legend and the edge in order to produce an undulated surface, which can be seen in the photograph also.

Coin No. 2 ; Pl. IV. 2

Size, 1.1″ ; weight, 130.7 grains.

Obv. Bust of the king to left.

Rev : Śiva by the side of his bull.

This coin is a forgery for the following reasons. (1) The weight 130.7 grains is irregular for any silver series; a coin of this size in gold would have weighed 241 grains, which is the normal weight of the Kushāṇa double staters. (2) Greek letters are blurred and indistinct; the hollow space of ϕ is filled up by the overflowing metal on its right side. (3) The Kharoshṭhi legend betrays an inexperienced hand ; the engraver was not equal to engrave the difficult word *Katphiśasa*.

Coin No. 3 ; Pl. IV. 3

Size, 1.1″ ; weight, 123.4 grains

Obv. King's bust in square incuse.

Rev : Same as in No. 2.

The coin is a forgery from a mould. (1) Air bubbles are visible even in the photograph in the segment below the king's bust on the obverse. (2) The penultimate letter of the Greek word BACIΛEYC is spelt as Γ. (3) The Kharoshthi legend is poorly engraved. (4) If in gold, the weight of this coin would have been 228 grains.[1]

Coin No. 4 ; Pl. IV. 4

Size, ·65″ ; weight, 33·1 grains.

Obv. King's bust to left.

Rev. Śiva by the side of his bull.

The coin is a forged one. (1) Letters C and I and Y and C are joined together by the overflowing metal. (2) Kharoshṭhi legend is indistinct. (3) The coin, if in gold, would have corresponded with that of a half-stater.

Coin No. 5 ; Pl. IV. 5

Size, ·5″ ; weight, 15· grains.

Obv : King's bust in square incuse

Rev. : Trident.

(1) Silver is heavily adulterated in this coin. (2) Air bubbles are visible on the obverse in the upper left corner. (3) King's features lack in sharpness. (4) Greek legend has not come

1. There are some genuine gold staters like the *I.M.C.* No. 4, (p. 70), which weigh only 112 or 113 grains. So coins Nos. 1 and 3 will be double staters corresponding to such under-weight staters.

out well. The weight of this coin, if in gold, would have been 28.4 grains; it would have been very nearly that of a quarter stater.

COINS OF KANISHKA

Coin No. 6; Pl. IV. 6

Size, ·75″; weight, ·65 grains.

Obv.: Standing king offering oblations.

Rev: Arooaspo.

(1) The coin is dull in appearance and lacks sharpness of edges in the features of both the king and Arooaspo. (2) The weight of the coin, if in gold, would have been 119·6 grains and corresponded to that of a stater.

Coin No. 7; Pl. IV. 7

Size, ·6″; weight, 16·5 grains.

Obv: King standing and offering sacrifice.

Rev: Farro standing to right.

The coin is a forgery. (1) Shao has not come correctly; O looks like N. (2) The bisecting line of ϕ does not go through the letter. (3) If in gold, the coin would have weighed 30·3 grains and have been a quarter stater.

COINS OF HUVISHKA

Coin No. 8; Pl. IV, 8

Size, ·8″; weight, 61·2 grains.

Obv: Bust of the king to left.

Rev: Skando and Bizago.

The coin is a forgery. (1) The features of the king remarkably lack in sharpness. (2) Letters Sha and A join together owing to the overflowing metal. (3) The weight of the coin, if in gold, would have been 112·6 grains. Some genuine staters like the *I.M.C.* No. 4 (p. 70) weigh as low as 112·5 grains.

It may be pointed out that the weight of this coin, if in gold, would have been only 107 grains and would not have corresponded to any known denomination in that metal.

Coin No. 9; Pl. IV. 9

Size, ·8"; weight, 64.9 grains.

Obv: Bust of the king facing left.

Rev: Mao standing to left.

The coin is a forgery from mould. (1) Air bubbles are

visible between the hand and the head of Mao at X-XI. (2) the first N of Nano is defective (3) Above the letter *sh* of Koshano, there is a horizontal line, due to a crack in the mould. (4) The weight of the coin, if in gold, would have been 119·4 grains; in was obviously intended to be a stater.

Coin No. 10 ; **Pl. IV. 10**

Size, ·8"; weight, 70.4 grains.

Obv : Bust of the king facing left.

Rev. : Skando and Bizago.

The coin is a forgery from the mould. (1) The hollow space of O of Shao and Koshano is filled up by overflowing metal. (2) The weight of this coin, if in pure gold, would have been 129 grains ; it would thus have exceeded the weight of a stater by 8 grains. If, however, there were some alloy, it would have been about 120 grains, the normal weight of a stater. I may add that one stater in the *B.M.C.G.S.*, Huvishka No.23, weighs 125.5 grains.

Coin No. 11 ; **Pl. IV. 11**

Size, ·5" ; weight, 15.4 grains.

Obv. : Bust of the king to left.

Rev. : As above.

The absence of sharpness in the edges of the letters makes it abundantly clear that the piece is a forgery. The weight of this coin, if in gold, would have been 28.3, grains ; it would have been a quarter-stater.

A COIN OF KANESHKO

Coin No. 12 ; **Pl. IV. 12**

Size, 1.1"; weight, 75.5 grains.

This is undoubtedly a coin of Kaneshko, the successor of Vāsudeva, as shown by the presence of the Kharoshṭhi monogram on the obverse. A coin of Kaneshko of so fine a fabric is not known to me ; the forger had recourse to a very fine genuine coin-type. I therefore describe it in detail.

Obv : King wearing peaked head-dress, long coat and trousers, standing to left and offering oblations by r. hand ; 1. hand holding sceptre ; trident in front of the king, Kharoshṭhi letter *vi* outside the sceptre. Legend beginning at XII, S H A O N A N O S H A O K A [NE] S H K I K O S H A N O[1]

Rev. : Ardoxsho seated, facing on a high-backed throne, holding noose in r. hand and cornucopiae in l. Legend on r. A R D O X S H O. Monogram in l. upper corner.

1. The legend is given in modern Roman script. On the coins R is denoted by P and SH by the letter P with the vertical elongated at the top.

So far five silver coins of the Kushāṇas have been published. The first of them is in the British Museum. It is an issue of Wima Kadphises, with standing king on the obverse and Śiva by the side of his Bull on the reverse. It is published in *B.M.C.G.S.*, Pl. XXV. 11. It is similar to our coin No. 1, but of the size of a stater. The second silver coin is the one in the Indian Museum, Calcutta, which is an issue of Kanishka having Oesho on the reverse. It has been published in *A.S.I., A.R.* 1925-26, Pl. LXf. The third coin is the one is the Punjab Museum, Lahore, and published in its Catalogue on Pl. XVIII, 135. It is an issue of Huvishka having Nana and Oesho on the reverse, and was intended to be a semi-stater in gold. The fourth coin, again an issue of Huvishka, exists in the coin cabinet of the Bombay Branch of the Royal Asiatic Society and has been published in its *Journal*, Vol. XXIV p. 384 by the late K.N. Dikshit. This also has Nana and Oesho on the reverse. The fifth coin is in the collection of Mr. M.B.L. Dar, P.C.S. U.P. and was published in this *Journal*, Vol. II, p. 113, Pl. XA, 7. It weighs 40 grains and was an issue of Huvishka.

To judge from their photographs, the coins in the British Museum, the Indian Museum, the Punjab Museum, as well as that with Mr. Dar appear to be from moulds. They all show absence of sharpness of outlines. I doubt the genuineness of them all. I have just now no access to the photograph of the coin with the Bombay Branch of the Royal Asiatic Society and so cannot express any opinion about its genuineness.

In view of the conclusion that I have here arrived at about these 12 silver coins, may I request the Curators of the above four Museums and Mr. M. B. L. Dar to re-examine the silver Kushāṇa coins with them with a view to find out whether they are forged or genuine ?

SOME INTERESTING COINS FROM UJJAIN-BHILSA.

By P.L. Gupta, M.A., Banaras.

[Pl. III. 1-22]

Dr. V.S.Agrawala kindly gave me 11 ancient coins, which were sent to him for study by Shri N.R. Advani, Chief Conservator of Forests, Indore, who had acquired them from Bhilsa, Bhopal and Ujjain. Of these coins one is a silver punch-marked coin, very much worn; so it has been excluded. The other ten coins are interesting in several ways and are being published here with his kind permission. Only obverses are illustrated in the plate, since reverses of all the coins are blank.

COIN 1: Pl. III. 1.

Metal, copper; weight, 6·5 grains; size, ·3″x·25″.
Obverse. Four small sun-symbols punched at random.
Reverse. Plain.

This is a copper punch-marked coin of small denomination, which may be identified with copper Māsha, which normally weighed 5 *rattis* or 9 grains. While there are numerous references to copper Māshakas, their actual specimens are rarely known, and possibly none of them have so far been published. Silver punch-marked coins of the weight of 24 *rattis* are known with four symbols from Kośala, but they have four differing symbols. Silver coins of 48 *rattis* or 75 to 79 grains with four symbols are also known, but they too have only two symbols in common. As such this is the first specimen of a punch-marked coin where we have the same symbol repeated four times.

COIN 2: Pl III. 2.

Metal, copper; weight, 5.5 grains; size ‘35″x‘25″.

COIN 3: Pl. III. 3.

Metal, copper; weight, 12.0 grains; size, ·45″x.3″.
Obverse. Four small symbols (Pl. III, 11-14)
Reverse. Plain.

These two coins are also copper punch-marked pieces, representing two denominations, one being double of the other; one weighs 5.5 grains and the other 12 grains. It is probable that these two coins were struck as copper Māshaka and Dvi-Māshaka or Ashṭabhāga-Kārshāpaṇa of five and ten *rattis* (i.e. 9.0 and 18.0 grains) respectively.

As regards the symbols of these coins, symbols 11 and 12 appear to be identical, representing the sun. The punching of

the same symbol twice on the same coin is a well known phenomenon as refered to above, but in those cases the two symbols are placed diagonally opposite to each other; whereas on the present coins the two symbols have no such sequence, and the symbols are punched side by side. As such these specimens reqresent a new type of punch-marked coins.

COIN 4: **Pl. III. 4.**

Metal, copper coated with silver; weight, 15·75 grains; size, ·5″x·5″.

Obverse. Symbols Nos. 15, 16, 17, 16, (**Pl. III. 15-17**). Two symbols are identical and are placed opposite each other. The other two symbols are dissimilar and are punched opposite each other.

Reverse. Plain.

COIN 5: **Pl. III. 5.**

Metal, silver; weight, 10.5 grains; size, ·45″x ·5″.

Obverse. Symbols 18 and 19 (**Pl. III. 18-19**) placed opposite each other and an unidentifiable symbol repeated twice, placed diagonally.

Reverse. Plain.

Though the symbols on these two coins are quite new to the series, their orientation is well known; two similar symbols are arranged in one line and the two dissimilar ones in another, cutting each other diagonally. Such coins were published by Shri. Shri Nath Shah.[1] His coins weigh 75 to 79 grains and he has identified them as Adhyardha-Kārshāpaṇa, i.e. 1½ Kārshāpaṇa of 32 rattis standard. Dr. Alteker suggested that these coins may be double Kārshāpaṇas of 24 *rattis* standard. But coins of both these denominations with the suggested standard weight are not known from literary sources. Instead a coin called Ardha-Śatamāna of 50 *rattis* or 90 grains is well known from grammatical literature;[2] and as such the coins of Shri Shri Nath Shah may be Ardha-Śatamāna.

The present coins also seem to be related to the Śatamāna series as its sub-multiples; their four symbols are also similarly arranged, The weight of the coin No. 4 is 13·75 grains and it seems to have been an *ashṭa-bhāga* Śatamāna or *Sāṇa*. Coin No. 5 weighs 10·5 grains and seems to have been *Ardha-śāṇa* or half-Śāṇa, which weighs 6·25 *rattīs* or 11·25 grains. According to their weight these coins were then 1/8th and 1/16th of Śatamāna. Pādārdha-Śatamāna or *Sāṇa* is well known from grammatical literature as stated by Dr. V. S.

1. *J.N.S.I.*, Vol. III, p. 51-52.
2. *Ibid.*, Vol XII, p. 195.

Agrawala in his Presidential Address to the Numismatic Society of India, Nagpur session.[1] As regards the coins of 11·25 grains too, which are identified above with Ardha-Śāṇa, Dr. V. S. Agrawala, has informed me that this denomination is mentioned in the *Mahābhāshya* of Patañjali.

It may be added that copper coins coated with silver were current in the Mauryan period and they probably passed as silver coins.

COIN 6 : Pl. III. 6.

Metal, silver coated copper; only traces of silver are noticeable on the coin. Weight, 4.5 grains; size, '25″ × '25″.

Obverse. Symbol No. 20. (Pl. III. 20)

Reverse. Plain.

This punch-marked coin belongs to silver series. The symbol is not complete, but a careful comparison with the coins of class 3, published by Mr. Allan in his *B.M.C.,A.I.* part I (p. 6-7) shows that the coin belongs to the same series, with some difference in variety. On the coin an object which appears to resemble fish and parts of two taurines are clear. The part of the animal which appears like a lion on the *B.M.C.* coins is noticeable on our coin below the fish-like object. This series of coins in the British Museum was acquired as a part of the collections of Cunningham and Whitehead. Only one of them is known as found at Mathura, the provenance of the others being unknown. The present coin shows that the series was current in Mālwā also.

The coins in the British Museum weigh between 23.9 and 28.3 grains. One of its coin No. 22 is as low as 21.5 grains but it belongs to a different variety of the class. These weights show that the coins are *Ardha-Kārshāpaṇas or* half-Kārshāpaṇas of 32 *rattis* weight standard.

The present coin with 4.5 grains weight appears to be an Ashṭabhāga-Kārshāpaṇa or Dvi-Māshaka of 4 rattis or 7·2 grains weight.

COIN 7: Pl III. 7.

Metal : copper with traces of silver coating; weight, 12.0 grains; size ·4″ × ·3″.

COIN 8 : Pl. III. 8.

Metal : silver; weight 7. grains; size ·35″ × ·3″.

Obverse. Symbol as on Pl. III. 21.

Reverse. Plain.

The silver coins of this type are known from the *B.M.C., A.I.* (p. 10) and they originally formed part of the collection

1. *Ibid* ; *ante*, p. 24.

of Cunningham. The main interest of the present coins lies in the fact that they give us a clue to the provenance of the coins of this type. The provenance of Cunningham's coins is not recorded ; so it was suggested by Mr. Allan that they belonged to North India. We can now ascribe the type to Mālwā.

Of the two coins one has traces of silver-coating and the other appears to be silver. As such both coins were meant for silver currency and one was double of the other. The heaviest of the British Museum coins is 20.2 grains (*B.M.C.* Coin No. 2, Class 6 of Part I), which suggests that they were double of our coin No.7. In all probablity the three denominations represented by these coins are Ardha-Kārshāpaṇa of 16 *rattis* (28.8 grains), Pāda-Kārshāpaṇa or Quarter-Kārshāpaṇa of 8 *rattis* (14.4 grains) and Ashṭabhāga-Kārshāpaṇa of 4 rattis (7.2 grains).

COIN 9: **Pl. III. 9.**

Metal, silver; weight, 19.0 grains; size, ·4″ x ·3″

COIN 10: **Pl. III. 10**

Metal, copper; weight, 13 grains; size, ·4″ x .35″.

Obverse. Symbol as on **Pl. III. 22**

Reverse. Plain.

These coins have nearly the same symbol as on the preceding two coins (Symbol 21), with the distinction that the central semi-circle with loops on either side has been replaced by a circle. This may be another variety of the same class. The coin No. 10 has no traces of silver, but in all probablity it had the silver coating which has now completely disappeared. As such coin No. 10 may represent half the denomination of coin No. 9 which is broken at a corner. These two coins may be taken as Pāda-Kārshāpaṇa of 8 rattis (14.4. grains) and Ardha-Kārshāpaṇa of 16 *rattis* (28.8 grains).

This variety of coin was not known before.

Lastly, it may be added that Mr. Allan has placed his coins of the variety, to which our coins Nos. 7 and 8 belong, among punch-marked coins, but the present coins (Nos. 7-10) show that they are cast coins and not punch-marked.

TWO YAUDHEYA COINS[1]

By Dr. P. Banerjee, Indian Museum, Calcutta.

[Pl III. 25-27]

The coins under consideration belong to the collection of the Archæological Section, Indian Museum, Calcutta. They have been described by Smith in his *Catalogue of the Coins in the Indian Museum*, Calcutta, Vol.1, p.182, but not illustrated in the plate. I publish them here, since some of the symbols occurring on them require a further elucidation or modified interpretation. They are illustrated here on Pl. III, 25-26.

The coins are of copper. They are of irregular shape. They weigh 116.3 and 119.5 grains respectively.

The first of these coins (i.e. the Yaudheya coin No. 19 of Smith's *Catalogue*) (Pl. III. 25) has on the obverse the figure of Kārtikeya facing, the portion from the neck to the head being almost effaced, represented perhaps as single-headed. He holds in the right hand a spear, while his left hand is placed on the hip. The legend is only partially extant and the portion that is legible and can be read is *ṇyadeva*[2]. On the reverse of the coin is a deer standing to right. Below are shown water or a river, and its grassy bank represented by vertical lines, a feature omitted by Smith in his description. The deer seems to be standing in the water. Above is a vase; (cf. the symbol on the Yaudheya coins, Nos. 3. 5 and 12, Allan's *Catalogue*, Pl.XL). The vase, however, is partially obliterated; but its main outlines are clear. Smith wrongly took it to be a a crescent.[3] To its left is a symbol, which is not very clear to me. But it may be a tree, as Smith has suggested[4].

The second coin (i.e. the Yaudheya coin No. 20 of Smith's *Catalogue*) (Pl. III. 26) bears on its obverse the six-headed figure of Kārtikeya, facing. As on the first coin, he has a spear in the right hand, the left hand being placed on the hip. The extant legend reads *Brahmaṇ[ya]*, being only a part of the full legend referred to above. On the reverse of the coin is a deer standing to right. Above is a vase more or less of a crude shape. The vase has a ring or handle at either side, and some decorative lines on its body; and a plant

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1. I write this article at the kind suggestion of Dr. A.S. Altekar, the Editor of this journal.
2. The full ordinary legend seems to be *Bhāgavata-Svāminṇo-Brahmaya-devasya* (*or Sa*) *Kumārasya* (*or sa*). Allan, *Catalogue of Indian Coins, Ancient India*, intro., p.cl.
3. Smith, *Catalogue of the Coins in the Indian Museum*, Vol.1, p. 182.
4. *Ibid.* [It is described as Tree in railing in *B.M.C.,A.I.*, p. 273. A.S.A].

is coming out of its mouth. The top of the plant is almost effaced, but some of its branches or lines are clear to the naked eye. From a close examination of the original, it appears that the plant was a flower plant. Smith failed to take note of the plant and hesitatingly described the whole symbol as a shrine with curved roof.[1] Smith's suggestion does not seem to be correct.

That the symbol in question is a vase and a plant will be quite clear from the photograph of the coin reproduced here (Pl III. 26). It may be noted here that on most of the Yaudheya coins having deer on their reverse, one associated symbol is a vase with a flower plant. A sanctuary is hardly seen on any such coin. The symbol in question is very crudely shaped on the coin. I am supplying here a drawing of the same showing its main outlines with the portions restored in dotted lines; see Pl. III. 27.

It may be noted that though vases with flower plants are common on many Yaudheya coins, the motif, as shown on the second coin of my paper, is different in shape and design, and hence of great interest to the numismatists. In the case of the first coin we find, among other symbols the representation of the grassy bank of a river, a feature not generally met with. Thus, these two pieces constitute two important varieties, if not types, of Yaudheya coins.

1. Smith, *Catalogue of the Coins in the Indian Museum*, Vol. 1, p. 182.

[17 coins of Yaudheyas with deer on the reverse are illustrated in *B.M.C.,A.I.*, pp. 273-5. Only two of these are illustrated on Pl. XL, 12-13. Neither of them shows river grass, which is clear on one of the *I.M.C.* coins. The object before the deer, which has been blurred on both the coins, appears to be a Six-arched Chaitya on one B.M.C. coin (Pl. XL. 13), and a kind of building on the other (Pl. XL. 12). The object above the deer on our coin on Pl. III, 26 does not appear on any coin in the *B.M.C.*. A.S.A.]

INDO-SCYTHIAN COINS FROM MR. ADVANI'S COLLECTION

BY DR. H.V. TRIVEDI, CURATOR, INDORE MUSEUM.

[Pl. I. 7-14]

Having studied the Indo-Bactrian coins in the private collection of Mr. N.R. Advani and published some of them in two articles in this *Journal*,[1] I now proceed to study the Indo-Scythian coins of his cabinet. This series of coins is important as they form the main source of the Scythian period of the Indian history. The problem has also to be reconsidered particularly in view of the fact that the Punjab Museum which stores the most important of this series of coins, is now not in India. It is therefore desirable not only to publish the important ones of these pieces, but also to mention in brief all the specimens found in the said cabinet. In all it contains twelve such pieces ; their details are as given below:

A. Silver : four coins of Azes, three didrachms and one hemidrachm, and two didrachms of Azilises.

B. Copper : One coin each of Maues and Spalyris with Spalagadames and four of Azes.

Of these, two silver coins (one hemi-drachm and one didrachm) were found to be spurious, and two of the copper coins are of the "enthroned Demeter and Hermes" type which is very common. They have therefore been excluded from the description which follows, while the rest are published here.

A COIN OF MAUES : ELEPHANT AND SEATED FIGURE.

A number of coin-types are known to have been struck by Maues, the Indo-Scythian prince, but the coin described below, though not a new one, has some peculiarities of its own. Before studying them it may first be described here.

Size: square, .8″ ; weight : 136.5 grains.

Obv. : In square frame elephant to r., with wreath in uplifted trunk. Legend : l., ΒΑΣΙΛΕΩΣ ; top, damaged or out of flan, [ΒΑΣΙΛΕΩΝ ΜΕΓΑ]; r., ΛΟΥ ΜΑΥΟΥ.

Rev. : Seated figure (deity or king),[2] facing, cross-legged on high cushion, enclosed in a square frame. Kh.

1. Vol. XIII, p. 78 and 215.

[2. For the identification, see next article. *A.S.A.*]

legend on three sides: *Rajatirajasa mahatasa Moasa*. Mon. as on plate. **Pl. I, 7**

The *I.M.C.*, p. 40, describes two coins of the present type, one of which is illustrated on plate VIII, 4. But our coin though resembling them has a different monogram, which is identical with that on the other which is not illustrated; which it is more like No. 3 on its plate X. The *P.M.C.* registers three such coins, illustrating one of them on Plate X. 13; but unfortunately the very name of the king in its Greek legend is lost, whereas it is complete on the present piece. The figure of the elephant on our coin is better executed than on any published piece.

A COIN OF AZES WITH POSEIDON

Size: rectangular, 1." x 95"; weight: 156 grains.

Obv.: Poseidon standing to front with long trident in l. hand and r. hand resting on knee; the r. foot on shoulder of a small figure to l. Greek legend running continuously on three sides:
ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ [ΜΕ] ΓΑΛΟΥ ΑΖΟΥ.

Rev.: Female figure (Maenad ?) standing to front between two vine creepers. Kh. legend running continuously on three sides: *Maharajasa rajarajasa mahatasa Ayasa* (partly off the flan). To l. mon., *P. M. C.* No 29.

Pl. I, 8

Coins of the present type are rare as they are commonly found restruck on issues of the Greek kings.[1] The Punjab Museum is known to possess nine pieces of this type, two of which are restruck;[2] but none of them is illustrated, and this is why we publish the present coin which resembles them in size, legend and monogram. The weight of our coin, however, is less by 14 grains, which is due to its wear and tear which have made it smooth. The *I. M. C.* registers three coins of the type, two of which are in poor condition and on one, which is illustrated in its plate VIII, 16, the name of the king is not legible. As shown by the plate, it is not so well preserved as on our coin but it can be made out. The *B. M. C.* illustrates one coin of this type, in plate XIX, 10, and another, which was found in excavations at Sirkap, is illustrated in *A. S. I., A. R.*, 1914--5, pl. XXVIII, No 21. On the latter the name of the king in the Kh. legend is lost, which is not the case with our coin, though some other letters on it are obliterated. The name on this type of coins is particularly important in

1. *P. M. C.*, p. 122. f. n.
2. *Ibid.*, nos. 241-249.

view of the fact that they were also struck by Maus and Azilises;[1] and it is only the name that distinguishes one specimen from the other.

ANOTHER COIN OF AZES: ELEPHANT AND BULL TYPE

Size: circular, diameter, 9″; weight, 197·5 grains.

Obv.: Elephant walking r. Greek legend, partly indistinct and also off the flan, as on silver coins of the king. In upper field indistinct monogram.

Rev.: Humped bull to r. Kh. legend, partly off the flan, as on silver coins. Two monograms in upper field, as on the plate. Pl. I. 9.

The *I. M. C.* registers as many as eleven specimens of this type, but none of them is illustrated, since as said therein on page 45, no coin of this type is in good condition. The *P. M. C.* describes seven pieces of the present type, illustrating one of them, i. e. No. 288, on plate XII. But the piece under description shows some interesting points worth noting. It shows the better executed figure of the elephant, with a fine curvature at the point of its trunk, which is not to be found on the piece illustrated in the *P. M. C.* Similarly, the figure of the bull and particularly its longer neck showing some variation are worth noting. But the special interest of the present specimen lies in its monograms on the reverse, the first of which appears to be a new one and the second, which is probably the Kh. letter *sphi*, is not known to have been borne by any of the *P. M. C.* pieces. All these points go to show that the present piece is peculiar in its own way and as such deserves publication.

A COPPER COIN OF SPALYRIS WITH SPALAGADAMES

Though little known, Spalyris is a notable personage who struck coins in different capacities, viz. as king, as king's (Vonones') brother and with his subordinate Azes. Therefore the legends on these coins showing slight differences are very important; and it is because of its well preserved legend that this coin is being published.

Size: rectangular, 8·5″ × 7·5″; weight: 120. 5 grains.

Obv.: In square astrologus frame king on horseback to r. Greek legend beginning at the lower left corner and running continuously on three of the sides; [πΑΛΥΡΙΟ] ΔΙΚΑΙΟΥ ΑΔΕΛΦΟΥ ΤΟΥ ΒΑCΙΛΕΩC; with square forms of letters.

1. *Ibid.*, pl. X, 20; *A. S. I.*, *A. R.*, 1914—5, pl. XXVIII, 17.

Rev.: Naked Herakles, diademed, seated l. on rock on which his l. hand rests; supporting club on r. knee. Kh. legend: r., [*Spa*]*lahoraputrasa*, top, *dhramiasa*, l., *Spalagadama*[*sa*]. To l. mon., *P. M. C.*, No. 42.

Pl. I. 10.

The *P. M. C*, describes four coins of this type, illustrating one of them on plate XIV, 386; but on it the name of the king in the Greek legend is lost, whereas it is complete on our coin on which the Kh. legend too is better preserved. It is also in a better state than any of the four coins which are found registered in the *I. M. C.*, as shown by the illustration on its plate VIII, No. 7 and also by V. A. Smith's remarks on page 41 while describing them. The pieces of the Punjab Museum are no longer in India and those of the Indian Museum are all worn; so the present piece is an important one.

Coins of this type were also discovered at Taxila[1], but nothing about them is known to-day. Thus the present one is a most rare piece and for this reason it deserves publication.

INDO-SCYTHIAN COINS WITH PECULIAR MONOGRAMS

The collection also contains four silver didrachms, two of Azes and two of Azilises, which are notable for the monograms they bear. Their short account is given below, without mentioning the legend etc., which are as found on silver coins of the types.

AZES: (1) Diameter, ·95″; weight, 144 grains.

Type: Mounted king with whip and standing Zeus Nikephoros.

Mon. on *obv.*: Kh. *ji*, which is not found on any of the 120 coins registered in *P. M. C.*, pp. 106 ff. Only obverse illustrated.

Pl. I. 11.

(2) Diameter 1. 5″; weight 147 grains.

Type: Mounted king with spear and Pallas with thunderbolt.

Mon. on *obv.*: Kh. *ga*; on *rev.*: to l., *P.M.C.* No. 19; to r., not exactly but resembling *P.M.C.* No. 28.

Pl. III. 12.

It is worth noting that no Kharoshṭhī letter except *a* appears as monogram on as many as 20 coins registered in the *P. M. C.*, pp. 112 ff. under the present type.

1. *A. S. I. A. R.*, 1915-6, pp. 2 and 5.

AZES: (1) Diameter, 1.05″; weight, 144 grains.

Type: Mounted king and goddess with palm.

Mon. on *rev.*, to r., Kh. *si*; to l., *P. M. C.*, No. 11 with Kh. *pha* which appears to be a new combination.

Only Reverse illustrated. **Pl. I. 13.**

(2) Diameter, 1.″; weight, 142 grains.

Type: Mounted king with spear and goddess with palm.

Mon. on *rev.*, to r., Kh. *saṁ*; to l., *P. M. C.* No 25.

Only reverse illustrated. **Pl. I 14.**

While publishing a similar coin in *J. N. S. I.*, VI, p. 13. Dr. Altekar rightly observes that the association of the delta-rho Greek monogram with Kharoshṭhī letter *ta* or *ra* is a new one; and the same remark may apply to the present coin also, where it is associated with the Kharoshṭhi letter *saṁ*.

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BUDDHA ON INDO-SCYTHIAN COINS.

By Dr. A. S. Altekar, Patna University.

[Pl. I. 7]

On two types of coins issued by Maues and Azes, we have a seated cross-legged figure on one side, which is taken to be a king by some scholars and as the Buddha by the others. The coin which is published in this number on **Pl. I. 7** enables us to settle the question to a great extent.

Out of the two types referred to above, one is issued by Azes and is illustrated in the *P.M.C.*, Pl. XI. 195 and the *B. M. C.* Pl. XIX. I. Here on the obverse we have a person seated cross-legged on a cushion, apparently holding a sword in one hand and an *aṅkuśa* or goad in the other. On the reverse there is a crude representation of Hermes. The way in which the goad is held in the raised-up hand makes it clear that the figure cannot be of the Buddha.

On one coin-type of Maues, however, we have a similar figure seated cross-legged. In this case both the hands of the figure are folded on the thighs, one above the other, as is usually done by the *yogins*. The *P. M. C.* Pl. X. 31 publishes a coin of this type and there is another in the *B. M. C.* Pl. XVII. 5 and a third one in the *I.M.C.*, I., Pl. VIII. 4.

Gardner, Smith and Whitehead regard this figure as that of the king seated cross-legged on a cushion. Dr. Tarn, on the other hand, has suggested that the figure is that of the Buddha; the elephant on the reverse is shown as coming dancing to garland him. Tarn maintains that the figure is not seated upon a cushion but on the usual Buddha throne.

The coin of this type published in the preceding paper by Dr. Trivedi[1] throws some additional light on this point.

The *Jātaka-Aṭṭha-Kathā-nidāna* tells us that when the future Buddha was going to take his seat on the Vajrāsana before his enlightenment, a grass-cutter named Sothiya offered him eight handfuls of grass to cover the seat. Gotama is stated to have covered the seat with these handfuls of grass before sitting upon it.

Gardner, Smith and Whitehead, who have published the three coins of this type, have not paid proper attention to the fact as to whether the seat is or is not covered with anything. If we carefully examine the coin published by Dr.

1. *Ante*, p. 47.

Trivedi in Pl. I. 7, there remains no doubt about the seat being covered with at least five handfuls of grass, which can be distinctly and separately seen on the seat under the figure. It is also possible to argue that there is a big handful on the left at the extreme end and two more handfuls coalesced together on the right. Thus there will be eight handfuls of grass on the seat, as stated in the *Aṭṭhakathā*. The coin in the *I.M.C.* seems to be distinctly covered with that appears to be a *darbhāsana*, see Pl. VIII.4. On the coin in the *P.M.C.*, Pl. X.31, we can distinctly see five handfuls of grass. The coin in the *B. M. C.* has six handfuls of grass. There is no object like a sword in the hand of the figure on the coin in Mr. Advani's collection. The hands are obviously folded one above the other; neither of them could have held any object. In the *P. M. C.* specimen also, the hands are similarly folded; what therefore appears as a sword is really the back side of the *āsana* or *chouki*. This will become quite clear from a careful examination. The same is true of the *B. M. C.* specimen.

The passage in the *Aṭṭhakathā*, above referred to makes it clear that on the coins of Maues on this type we have no king seated cross-legged, but the Buddha seated on his Vajrāsana on the obverse, who is about to be garlanded by the dancing elephant on the reverse. There are numerous references to the elephants coming to garland the Buddha in Buddhist mythology.

I shall now quote the passage in the *Aṭṭhakathā* for ready reference :—तस्मिं समये सोत्थियो नाम तिण्हहारको तिणं आदाय परिपथे आगच्छंतो महापुरिसस्स आकारं ञत्वा अट्ठतिण्णमुट्ठियो अदासि ।[1]

If, in view of the above evidence, it is accepted that the Buddha figure makes its appearance on the above type of Maues, we shall be able to take back its antiquity to about *c.* 75 B. C., which is now taken to be the date of that king by most scholars. The earliest datable Buddha figure is so far taken to be the one appearing on the coins of Kanishka in *c.* 100 A.D., no earlier dated sculpture being known. The present type will show that even before the rise of the Mahāyāna, efforts were made, perhaps by foreign converts, to represent the Master in the human form.

1. I am indebted to Mr. Shiv Kumar Singh, Research Scholar, Nalanda Research Institute, for supplying the reference to the above passage.

A NEW TYPE OF SĀTAVĀHANA COIN FROM NASIK

By Dr. H. D. Sankalia, Deccan College, Poona

[Pl. II. 19]

The coin described here was found in the surface debris on a mound known as Matichi Gadhi, over-looking the right bank of the Godavari at Nasik. Its excavation in 1950-51 yielded a sequence of cultures dating from prehistoric times (*c.* 1000 B.C.) to the Muslim period (1600 A.D.).

Before pointing out the new features of the coin,[1] it is better to describe it first.

Metal : Lead. Size : Rectangular, measuring about 20 mm. in length and 18 to 16 mm. in breadth, and 2 mm. thick.

Weight : 188·5 grains.

Obverse : Within a squarish die of dots, a well executed *svastika* in the top centre ; to its left and also probably below, traces of Brāhmī letters. Those on the top read *puta*[2]. In the lower right corner a lion with its facial features completely effaced, while his tail is raised and so bent back as to touch the lower arm of the *svastika*. **Pl. II. 19**

Reverse : Faint traces of Ujjain symbol, within an incomplete, extremely shallow square or rectangular die.

Such symbols have been found before on either square copper or round inscribed or uninscribed lead coins. But they were not so far noticed on a square lead inscribed coin, and that too from the Deccan. A square copper coin[3], closely resembling the present one, was published by Dr. Altekar, but its provenance was unknown. On this coin the lion is in the lower left corner, and there are traces of a legend "Siri Sātakaṇisa" in the upper half of the coin. The upraised tail of the lion is connected with one of the arms of the *svastika*. Analogous also are the coins from Kamrej and

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1. I am thankful to Mr. Waman of the Prince of Wales Museum, Bombay for cleaning the coin and giving me its weight. The coin is preserved in the Archaeological Museum of the Deccan College Research Institute.

[2. In the photograph, the reading *puta* is not clear. In the original coin, it appears to be probable. A. S. A.]

3. *JNSI.*, IV. (1942) pp. 25-26.

Karvan published by Mr. Gadre.[1] Dr. M. G. Dikshit[2] has very recently published a cast copper coin of Sātakarṇi (?). It too comes from the same mound at Nasik. Its obverse has features which are identical with those of our coin, but those on the reverse are slightly different.

It would thus appear that a square, lead, inscribed coin in the Sātavāhana coinage is probably a new feature not hitherto unknown.

[Four of the twelve coins from south Gujarat published by Mr. Garde and two of the Nasik coins published by Dr. Dikshit have the same features as the above coins, Lion with tail up-raised and *svastika* above, with the name of the king inscribed. It is thus clear that this type had become quite common at Nasik and in southern Gujarat for some time. This time can be the interval between overthrow of Nahapāṇa, *c* 110 A.D., and the reconquest of Gujarat by Rudradāman, *c.* 150 A.D. It was originally popular in Andhra country. A. S. A.]

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1. *Ibid.*, XII (1950) p. 28. In the plaster east, however, no traces of any letters are visible.
2. *Ibid.*, XIII (1951) pp. 33-34.

SOME INTERESTING ANCIENT COINS FROM MADHYA PRADESH.

BY DR. SANT LAL KATARE, M.A., D.LITT.,
MAHAKOSHALA MAHAVIDYALAYA, JABALPUR.

[Pl. II. 1-7]

The interesting ancient coins, which form the subject of this paper, were picked up from the banks of the river Narmadā, north of village Jamunia in the Hoshangabad district of Madhya Pradesh. They form part of the collection of Thakur Indra Kumar Singh Chauhan of the same village.

Coins numbered 1 to 3 and 5 below are of new classes not known so far. Coin No.7 reveals a new variety of cast coins.[1]

The coins may be described as follows :—

(1)

This is an interesting coin of a new class which was not known so far. It is die-struck.

Metal : Bell-metal. Weight : 97·5 grs.
Shape : Round. Size : .89".

Obverse : Elephant facing left and covering an object like a flagstaff by its upraised trunk, an arrow-head above its back and two *svastikas* on its either side with their hands turned to the left and not the right, There is yet another symbol at IX, but as it is not fully impressed it cannot be identified.[2]

Reverse : Above the river in the centre, a fish and an incomplete symbol looking like an arrow-point and below the river, the Taurine, Tree in railing and an incomplete symbol looking like the Brāhmī letter *sa* turned upside down.

Pl II. 1

The combination of the symbols and the two symbols, the arrow-point and the one looking like a Brāhmi *sa*, occuring on this coin have not been found on any other. It is interesting to note here that the elephant with a *svastika* symbol on its back occurs on a Sātavāhana coin published by Dr. A.S.Altekar[3].

1. *B.M.C.*: *C.A.I.*, pp. 85 ff.
2. [Very probably this symbol is triskelis, which is common on punch-marked coins. A. S. A.]
3. *J.N.S.I.*, Vol. IV, pl. II. 7.

(2-3)

These two cast copper coins are of unusual interest.

(2) Weight : 25 grs. Size. : ·35"x·48".

Shape : Rectangular.

Obverse: Tree in railing. **Pl II. 2**

Reverse: Blank

(3) Weight: 24 grs. Size: ·37″ × ·44″.

Shape: Rectangular.

Obverse: The same symbol as on coin No. 2 above. **Pl II. 3**

Reverse: Blank.

These are the only coins which to my knowledge have only one symbol, the tree in railing, on them. I have published in coins which have the lotus the next paper[1] as the only symbol on them.

(4)

It is a die-struck coin.

Metal: Copper. Weight: 38.5 grs.

Size: ·66″. Shape: Round.

Obverse: Kārtikeya holding some object, probably *śakti* in his right hand. Other symbols on the coin, if there were any, have been effaced, as the coin is partly broken off. **Pl. II. 4.**

Reverss: It appears to have been blank. As the coin is badly worn out, nothing can be seen.

Coins with the Kārttikeya symbol have been assigned to Ujjain and are commonly found in that region.[2]

(5)

It is also a die-struck coin.

Metal: Copper. Weight: 70.5 grs.

Size: .71″, .73″, .72″ and .76″. Shape: Square.

Obverse: An agitated bull facing right and a symbol like a pole with a cross attached to its upper end is placed on the back of bull.

Reverse: Whether certain formations are the traces of any symbols, it is not possible to say. I am inclined to think that the reverse is blank.

Pl. II. 5

It is not possible to suggest anything about its attribution.

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1. *Infra*, p. 60-61.
2. *B.M.C.*: *Coins of Ancient India*, pp. 245 ff, pl. XXXVIII; *J.N.S.I.* Vol. XIII, p. 75, pl. V. 12.

CAST COINS

Several varieties of cast coins have been published by Allan,[1] Cunningham[2] and others.[3]

I am describing here two coins of the same class. They are interesting in so far as they are helpful in determining the area over which this class of coins was current. They were so far known to have been discovered in Bihar, U.P., and Central India (Besnagar).[4] It is for the first time that its specimens have been found in Madhya Pradesh. The region of their find is not far off from Besnagar.

(6)

The first cast coin is of bell-metal, square in shape, 64.5 grs. in weight and ·55″ × ·59″ in size. The symbols on its obverse and reverse are the same as those on the *k* variety of cast coins published by Mr. Allan.[5] **Pl. II. 6** illustrates this coin.

The only important fact that deserves special mention regarding this coin is that elephant is holding in its trunk, an object which is similar to the one held by the elephant on coin No. 1 published above. Mr. Allan and other scholars, it appears, failed to notice this. The implication of this similarity between this coin and the one published as No. 1 above is not possible for me to explain. It may only be suggested that this class of coins was not far removed in time from No.1 published above. According to Rama Prasad Chanda this class of coins belonged to the Śuṅga period.[6] Durga Prasad assigned it to the Mauryan period. The conclusion of Durga Prasad was based upon the argumant that the two symbols, the hollow cross and the *Chaitya*, occurring on this class of coins, are found on a seal which has been excavated from the Mauryan level at Bulandibagh.[7]

(7)

This second cast coin is of a new variety not known so far.
Metal: Copper. Weight: 27 grs. Size: 56″ × .53. Shape: Square.

Obverse : Elephant facing left standing on a platform in front of a standard with something like a *triśūla* at its top; above the elephant a cross with solid knobs attached to its

1. *B.M.C., Ancient India*, pp. lxxiv ff, pp. 85 ff, pl. XI.
2. *Coins of Ancient India*, p. 60, pl. I. 28.
3. *B.M.C., Ancient India,* pp. lxxvii; *Numismatic Supplement* No. XLVII (1937), pp. 62-63; *A.S.I.A.R.*, 1927-28, pp. 95-96. pl. XXXVII. 2-3.
4. *B.M.C., Coins of Ancient India,* p. Ixxvii; *Numismuiic Supplement* (*J.A.S.B*), No. XLVII (1937), pp. 62-63.
5. *B.M.C., A.I.*, p. 89.
6. *A.S.A.R.* 1927-28, p.96.
7. *Numismatic Supplement* (*J.A.S.B.*) No. XLVII (1937), p.63.

four arms giving it the appearance of the Ujjain symbol,—this may be its earlier form,—and the taurine on its left.

Reverse: The tree in railing only can be seen with difficulty. The rest of the coin is badly worn out.

Pl. II. 7

This coin appears to have been of a different variety of cast coins than those published by Mr. Allan. It is rather unfortunate that it is badly worn out and all the symbols on its reverse cannot be seen.

EARLY COINS OF ERAṆ (MADHYA PRADESH)

BY: DR. SANT LAL KATARE, M.A., D.LITT.,
MAHAKOSHALA MAHAVIDYALAYA, JABALPUR.

[Pl. II. 8-12]

The Indian punch-marked and die-struck coins have a long and complicated story. Their age, classification and political and territorial affiliations have been a problem to the numismatists. A number of brilliant studies on this class of coins have been published and much of the ice broken, but much effort and more definite evidence are yet necessary before their riddle is solved. It has not yet been possible for scholars to determine the age of the origin of the punch-marked and die-struck coins and the stages in the evolution of the ancient Indian coinage.

The Eraṇ coins which have been recently found by Thakur Indra Kumar Singh Chauhan on the banks of the river Narmadā, north of village Jamunia in the Hoshangabad district of Madhya Pradesh are a valuable addition to our knowledge of the ancient Indian coins. They are particularly important for the study of the origin and evolution of Indian coinage. Shri Chauhan has kindly lent them to me for study and publication. The region of the find of these coins is not far off from Eraṇ, now a small village some 45 miles from Saugar in Madhya Pradesh.

All the five coins which I am publishing here are of copper, die-struck and rectangular in shape. The first three of them are not completely preserved; therefore their original weight and size cannot be given.

The coins belong to two varieties; four of them to variety A and one to variety B.

They may be described as follows :

VARIETY A

No.		Weight	Size	Probable value	
1.	(Incomplete)	12·5 grs.	·36″ × ·39″	½ *Kākiṇi.*	Pl. II. 8
2.	(Incomplete)	14 grs.	·44″ × ·42″	½ *Kākiṇi.*	Pl. II. 9
3.	(Incomplete)	23 grs.	·45″ × ·48″	¼ *Paṇa.*	Pl. II. 10
4.		54 grs.	·64″ × ·61″	½ *Paṇa*[1]	Pl. II. 11

[A *Paṇa* weighed 80 *rattis* or about 144 grains; the present coin could hardly have weighed 72 grains when fresh from the mint. It is complete. No. 3 also was probably not a *Kākiṇi* or quarter-*paṇa*. Nos. 1-2 could have been half-*Kākiṇi*, each having lost four or five grains. *A.S.A.*]

The value I have assigned to the coins above remains probable for the

P.T.O.

All the above coins have the lotus symbol on the obverse with a blank reverse. The lotus symbol differs from coin to coin, which shows that the die for each of them was different. The first three coins are not complete, a portion of each of them is broken off. Therefore, the lotus symbol on them is also not complete.

VARIETY B

There is only one coin of variety B. Its weight is 58 grs. and size ·78″ × ·67″. It might have been an *ardhapaṇa* in value. It has two symbols on its obverse: one the lotus and the other the river. The reverse is blank. See Pl. II. 12

The main difference between the coins of the above two varieties is that those of the variety A have only one symbol, the lotus, on them; while that of the variety B has two symbols, the lotus and the river.

These are the only Eraṇ coins to my knowledge four of which have one symbol and one two on them. On other Eraṇ coins published by Cunningham,[1] Bhandarkar[2] and Allan[3] the lotus and/or river symbols occur along with three or four other symbols, the tree in railing, the traingle-headed standard, some animal, the so-called Ujjain symbol, etc. This shows that the coins of variety A with the solitary lotus symbol published here may be the earliest coins of Eraṇ, because the lotus symbol, which was a characteristic of the Eraṇ coins and generally found on this class of coins with three or four other symbols, is the only symbol found on them. The coin of variety B, which has the river symbol added to the lotus symbol, was probably issued later and it was afterwards that coins with other symbols with or without these symbols were issued. The Eraṇ coins so far known to us belong to several varieties. All of them do not have the lotus and the river symbols on them. It appears that on some varieties of later Eraṇ coins, both these symbols were excluded.

The coins are important not only with regard to the origin of the Eraṇ coinage, but also for determining the stages in its evolution.

(*Continued from the last page.*)
reason that the coins have not been fully preserved. I find that a good portion of them is broken off. While giving their weight I have clearly said that they are incomplete. *Author.*

1. *A.S.R.* Vol. X, pp. 77 ff, pl. xxiv; Vol. XIV, pp. 149 ff, pl. XXXI-17–18; *Coins of Ancient India*, pp. 99 ff, pl. XI.
2. *A.R.I.A.R.* 1913–14, pl. LXV. 1–21.
3. *B.M.C., Anetcnt India,* pp. xc ff, pp. 140 ff, pl. XVIII-XIX.

WHEN DID THE REIGN OF HUVISHKA TERMINATE?

By Miss Padma Altekar, M.A., Patna.

(Pl. VI. 1-8)

The date of the termination of the reign of Huvishka is not yet definitely known. His inscriptions range from the year 24 to 60, which is usually taken to be the era of Kanishka ; and hence it is certain that Huvishka ruled at least for 36 years. But how long did he rule after the year 60, we do not know. The earliest known date of Vāsudeva, the immediate successor of Huvishka, is the year 74, as known by the Mathura Jail Mound inscription. It is therefore clear that Huvishka must have died some time between the years 60 and 74. But when exactly his death took place, we do not know. In the absence of epigraphical data on the subject, we can utilise the numismatic evidence, as supplied by his busts upon the coins.

There is no doubt that the gold coins of Huvishka have been found in a great number and have been described in many catalogues, but I am not aware of the obverses of Huvishka's coins being adequately illustrated, showing the differences in his age at the time of their issues. Thus the *I.M.C.* has described 20 gold coins of Huvishka, but has illustrated the obverses of only five of them, The *B.M.C.* has also described a number of gold coins, but has illustrated only four obverses. Nor are these busts arranged chronologically to show the differences in age. Our catalogues usually illustrate only the reverse sides of Huvishka's coins to show his religious eclecticism.

The gold coins of Huvishka in the collection of Mr. H.P. Poddar, the well known coin collector of Calcutta, are however of great numismatic importance, as they show the king's busts at the different stages of his life. These coins were shown to Dr. A.S. Altekar, when he was at Calcutta last year by Mr. Poddar. Later on Mr. Poddar sent the photographs of the coins to Dr. Altekar at his request and with the latter's permission, I am publishing them in this *Journal*.

From the study of the features of Huvishka's coins, it appears that the artists were very skilful, and have accurately engraved the busts of the king at the different stages of his life. Thus the coin No. 1 (Pl. VI. 1) obviously shows that he was probably a man of 30 at the time of its issue. The features of coin No. 2 (Pl VI. 2) show that the king then was probably of

the age of 35. The coin No. 3 (Pl. VI. 3) was probably issued when the king was of the age of 40. The coin Nos. 4, 5 and 6 show the king's bust of the age of 45, 55 and 60 respectively (Pl. VI. 4-6). The coin No. 7 (Pl VI. 7) was obviously issued when the king was much older ; he was at least 65 at that time. The coin No. 8 (Pl. Vi. 8) shows the king to be a man of more than 70, probably of the age of 75. He has a bearded face and sunken cheeks. Thus the coins of Mr. Poddar's collection clearly indicate that Huvishka was on the throne from the age of 30 to the age of 75. The inscriptions, however, inform us that Huvishka ascended the throne in or before the year 24 of Kanishka's era and the youngest bust (Pl VI. 1) shows that he was then about 30. The oldest bust (Pl. VI. 8) suggests that he must have been then about 75 ; this coin was issued about 45 years later than our first coin ; that is to say about 45 years later than the year 24 of Kanishka's era. It would thus appear that Huvishka ruled upto about the year 70 of that era. His death therefore may be presumed to have taken place between the years 70 and 74 of that era. The numismatic evidence thus enables us to state that, though we have no dated records of Huvishka after the year 60, he continued to rule at least for a decade more. His death may be placed sometime between the years 70 and 74 of Kanishka's era.

I shall now briefly describe the coins.

Coin No. 1.

Size, ·85″ ; weight, 121 grs.

Obv. Bust of the king wearing coat and necklace facing left, with a semi-circular head-dress adorned with pearls, plaque in front of the head-dress, sceptre in 1. hand and club in the r. hand. This bust suggests the age of 30.

Legend—SHAO NANO SHAO OESHKI KOSHANO.

Rev. Mao standing left wearing tunic, crescent behind shoulders, 1. hand on sword at side, wreath in the r. hand, monogram below it.

Legend—MAO. Pl. VI. 1

Coin No. 2.

Size, ·75″ ; weight, 122 grs.

Obv. As on coin No. 1, but the face is slightly older, suggesting the age of about 35.

Legend–[SHAO NA] NO SHAO OESHKI KOSHANO

Rev. Same as on coin No. 1, but no wreath in the right hand. Pl. VI. 2

Coin No. 3.

Size, ·8″; weight, 122 grs.

Obv. Same as on coin No. 1 but the crown is a peaked one with a plaque in front; the face suggests the age of 40.

Legend—SHAO NANO SHAO OESHKI KOSHANO.

Rev. Ardoxo standing right, holding cornucopiæ in right hand.

Legend—ARDOXO. Pl. VI. 3

Coin No. 4.

Size, ·8″; weight, 122 grs.

Obv. Same as on coin No. 1, but the features suggest the age of 45.

Rev. Ashixsho standing to left, r. hand upraised, l. hand resting on waist.

Legend—ASHIXSHO. Pl. VI. 4

Coin No. 5.

Size, ·8″; weight, 122·5 grs.

Obv. Same as on coin No. 1, but the features suggest the age of 55

Rev. Shahrewar, standing right, wearing helmet and armour, grasping spear in right hand.

Legend—SHAOREORO. Pl VI. 5

Coin No. 6.

Size, ·8″; weight, 122 grs.

Obv. As on coin No.1, but the features suggest the age of 60.

Rev. Nanashao standing right, holding sceptre in right hand.

Legend—NANASHAO. Pl. VI. 6

Coin No. 7

Size, ·8″; weight, 118·5 grs.

Obverse: Bust of the king facing left, club in the right hand. The features suggest the age of 70.

Reverse: NANA. Pl. VI. 7

Coin No. 8

Size, ·75″; weight, 121·5 grs.

Obverse : Bearded bust of the king, facing left, wearing a cap and coat, club in the right hand.

Legend—Same as on coin No.1

Reverse : Mao standing right, holding fillet in r. hand, left hand on sword at side.

Legend—MAO **Pl. VI. 8**

In the end, a few words may be said about the different types of crowns used by the king. As has already been said, the artists of Huvishka were skilful and have beautifully engraved the crowns. On the coin No. 1, the king wears a semi-circular head-dress, adorned with pearls and decorated with a plaque in front. On the coin No. 2, the king wears only a helmet and the diadems are shown as falling behind his head. On the coin No. 3, the king wears a peaked type of crown adorned with pearls and a plaque in front. On coins Nos. 4 and 5, the crown is not peaked, but its front portion is higher than the back. On the coins Nos. 6 and 8 the king wears only a skull cap decorated with pearl strings.

THE CHATTRA TYPE OF CHANDRAGUPTA II

A New Variety.

By Miss Padma Altekar, M.A., Patna.

[Pl. VI. 15]

The coin, I am publishing here, belongs to the valuable collection of Śri. Radhakrishna Jalan of Patna City. I am publishing it with his permission.

Obverse : King standing left, offering oblations on altar in his front; his head is bare, showing frizzled hair. There is a dwarf behind, holding an umbrella, which is shown as away from the head of the king; standard with fillets behind the king.

Legend—*Kshitimavaja(ji)*[*tya sucharitair divaṁ jayati Vikramādityaḥ*].

Reverse : Goddess standing left on a low pedestal, lotus bud in l. hand, fillet in r. hand.
Legend blurred. **Pl VI. 15.**

A number of varieties have been distinguished in this type, based on the peculiarities of the posture of the Goddess on the reverse. In variety A, the Goddess stands on a lotus facing to front. In variety B, she stands on a low pedestal. In variety C, she stands on a mat. In variety D, she is walking to left. In variety E, she is double marching.

Our coin belongs to the variety B above. It is, however, important to note that on our specimen the Goddess is shown as about to get down; for she is shown as lifting her left foot. This is the special feature of our piece, which is not yet found on any coin published so far. It may be pointed out that on the Tiger-slayer type of Samudragupta, illustrated on **Pl VI. 10.** of this number the goddess is also shown as about to descend down. There is no doubt that the Gupta artist was always in search of new varieties to avoid the feeling of monotonousness.

SOME RARE GUPTA COINS OF MR. PODDAR'S COLLECTION.

By Miss Padma Altekar, M.A., Patna.

(Pl. VI. 9-14.)

I am publishing in this *Journal* some of the rare Gupta coins in the collection of Mr. H.C. Poddar of Calcutta. These coins were first shown to my father Dr. A.S. Altekar by the owner, when the former visited Calcutta last year. The types are well-known, but each specimen has its own special peculiarities.

Tiger-slayer type of Samudragupta.

Size, ·85″; weight, 121 grs.

Obv. King standing to l. wearing a turban, short jacket, close fitting *dhoti*, necklace, earrings, armlets, and trampling on a tiger, which falls back as he shoots it with bow in r. hand, l. hand stretching the bow-string to the ear.

Legend—*Vyāghraparākramaḥ.*

Rev. Goddess standing on a *makara* wearing a *sāri*, earrings, necklace and armlets, holding full blown lotus in l. hand, r. hand outstretched and empty; on the left, crescent-topped banner with fillets. No symbol. Legend—*Rājā Samudraguptaḥ* Pl. VI. 10

This is a very fine specimen of the Tiger-slayer type of Samudragupta. The coins of this type are very rare; so far only six specimens have been found. The Bayana hoard contains only two specimens of this type, while the findspots of other four coins are not known.

The *B.M.C.* distinguishes two varieties in this type. In variety A, we have the same legend *Vyāghraparākramaḥ* on both the sides; in variety B, the legend *Vyāghraparākramaḥ* is on the obverse side and *Rājā Samudraguptaḥ* on the reverse side. Our coin belongs to variety B and is similar to that illustrated in the *B.M.C.*, Pl. II, 14.

It is, however, important to note that our coin is artistically superior to the coin published in *B.M.C.* Pl. II. 14. All the features of the king are beautifully and clearly engraved on our coin. The necklace, the armlet and the buttons of the jacket can be seen more clearly on our coin than on the *B.M.C.*

specimen. The turban of the king is artistically beautiful. It has fully come out on our coin, while such is not the case with the *B.M.C.* coin; only some parts of the turban can be seen on it. Similarly the left hand of the king by which he is outstretching the bow-string, has been fully and clearly engraved on our coin, while on the *B.M.C.* specimen, we can see only half the portion of that hand. The face of the fallen tiger can also be more clearly seen on our coin than is the case with the *B.M.C.* piece. Further the obverse legend on our coin is boldly, fully and clearly engraved; we can even see the medial vowels and the *visarga* in it; while on the *B.M.C.* specimen, the legend is incomplete. Letters *vya*, *ghra*, aud *ra* are clear on it, but *pa*, *kra* and *ma* are blurred.

As regards the reverse side the goddess is standing straight on the coin illustrated in the *B.M.C.* Pl. II. 14, while on our coin, she is shown as about to get down. She is distinctly seen lifting up her left foot. *This is a special feature of our coin, which is not yet seen on any coin of this type published so far.* It is further important to note that the crescent-topped banner is fully and clearly engraved on our coin, while such is not the case with the *B.M.C.* specimen.

BATTLE-AXE TYPE OF SAMUDRAGUPTA.

Obv. King standing l. nimbate, sword at belt, r. hand rests on the waist, l. hand holds a battle-axe; on left, a dwarf standing in front of the king, crescent-topped banner between the two. Legend almost off the flan; on the right, *Kṛi*[*tāntaparaśurjaya*]*tyaja*(*ji*)*tarājajetājitaḥ*.

Reverse : Goddess Lakshmī seated on the throne, holding noose in r. hand and the lotus in l. hand. The back of the throne is visible. Symbol on left.

Legend—*Kṛitāntaparśuḥ*. Pl. VI. 11

The coins of this type are found in a great number and are divided into several varieties. In variety A which is most common, the name of the king Samudra is written under his left arm. In variety B, *Kṛi* is substituted for Samudra. In variety C, we get the full name of the king Samudragupta, Samudra being written between the king and the attendent and Gupta under his left arm. Our coin belongs to variety C and is similar to that illustrated in the *B.M.C.* Pl. II, 15 and described in *L.M.C.*, p. 8. This is the second coin of this variety to be illustrated.

It is, however, important to note that the coin in the *B.M.C*, above referred to, is not as fine as our present coin. The features of the king are very indistinct on the *B. M. C.*

coin, while on our specimen, they can be seen very clearly. His necklace, earrings, armlets, buttons of the coat and the sword at the belt are quite distinct on our coin, while on the *B. M. C.* coin, only some parts of the armlets are visible; the necklace and the buttons of the coat have not at all come out. The crescent-topped banner and its fillets have also been more boldly engraved on our coin than is the case with the *B. M. C.* coin. Further on our specimen the word *sa* of Samudra has been wrongly written as *śa*, which is an interesting feature. It would appear that the tendency to confuse the pronunciations of *sa* and *śa* existed in eastern India in the Gupta period also, as it does today.

The reverse of our coin is much better preserved than that of the coin in the *B. M. C.*

Lyrist Type of Samudragupta.

Size, ·85″; weight, 118 grs.

Obv.: King seated left on a couch, holding *vīṇā*, scantily dressed, wearing necklace and a close-fitting cap.

Legend *Mahārājādhirāja-śrī-Samudraguptaḥ*.

Rev.: Goddess seated on a wicker-stool holding noose in r. hand and cornucopiae in l. hand. No symbol.

Legend *Samudragupta*. **Pl VI 9**

This is a very fine specimen of the Lyrist type of Samudragupta. The portrait of the king has been more skilfully portrayed on this coin by the artist, than is the case with any specimen illustrated in the *B.M.C.* Pl. V, 1-8. The circular legend is also fully preserved on our piece, while such is not the case with the *B.M.C.* coins. All the letters are clear on our piece except the letter *ga*. Even the medial vowels and *visarga* can be seen clearly on our specimen.

Archer type of Chandragupta II.

Size, oval, 85″ × ·75; weight 129·5 grains

Obv.: King standing left, wearing necklace, earrings and armlets; bow in l. hand, arrow in r. hand; wheel above the Garuḍa standard on the left.

Rev.: Lakshmī seated on lotus, necklace with bangles, armlets and earrings; lotus bud in l. hand, noose in r. hand.

Pl. VI, 13-14

The coins of the Archer type of Chandragupta II are very common, but those coins which show the wheel on the obverse

are very rare. The *B.M.C.* has illustrated only three specimens of this variety. Our coins are therefore the fourth and fifth specimens of this variety to be illustrated. All the coins of this variety weigh in the vicinity of 130 grains.

HORSEMAN TYPE OF KUMARGUPTA I WITH A NEW LEGEND

Size, .76″; weight, 126·6 grs.

Obverse : King, nimbate riding caparisoned horse to right, its mane artistically plated, bare-headed, wearing coat, necklace, earrings and probably trousers.

Legend—*Pṛithivītalāmbaraśa* [*śī Kumāragupto jaya*] *tyajitaḥ*.

Reverse : Within dotted border, Goddess nimbate, seated on a wicker stool to left, holding lotus bud in r. hand, l. hand resting on waist.

Pl. VI. 12.

Legend—*Ajitamahendraḥ*.

The Bayana hoard contains nine coins of this variety, of which one has been illustrated by Dr. A. S. Altekar, *ante.* Vol. X. pp. 112—3. The coin in Sri. Poddar's collection, published here, is the second piece, to see the light of the day. The extant legend on it is better preserved than that on the coin of the Bayana hoard published above in Vol. X.

It may be noted that in the *B.M.C.* Pl. XIII, 1 Allan has illustrated a coin of this variety. But the coin being blurred and the legend being indistinct, he was not able to read it fully. He read only the following words of the legend *Pṛithivitalām . ... divaṁ jayatyajitaḥ*. On our coin the legend is more distinct than on the *B.M.C.* piece, and so we can restore it now with confidence.

TWO MORE COINS OF HUVISHKA WITH AHURA MAZDA.

By Dr. A.S.Altekar, Patna University.

(Pl. VI. 16-17)

While publishing Mr. A.N.Lahiri's paper on the Ahura Mazda coin in Sri. H.D.Poddar's collection, (*ante*, XIII, p. 175-71 and Pl. IX. 19)[1], I had given a footnote stating that one more coin of this type had been purchased by the Patna University, and would be published in the next number. The Patna Museum had also in the meanwhile purchased the collection of gold coins belonging to the late Ambujanath Banerji of Calcutta, and I had noticed that it also contained a coin of Huvishka of this type. After the publication of the last number, Sri A. Dutta wrote to me from Delhi to enquire whether the Ahura mazda coin in Sri. Poddar's collection was genuine. He further stated that an Ahura Mazda coin had once been offered to him for sale, but as he doubted its genuineness, he did not buy it. He further told me that he later learnt that this coin had been purchased by Sri. Ambujanath Banerji of Calcutta and he wanted to know whether the coin published was identical with it.

The genuine Kushāṇa coins are generally die-struck. In modern times the coin dealers have prepared moulds from the genuine coins, from which they forge their duplicates. The forged coins from moulds can be generally detected from the absence of the sharpness of outlines. Sometimes letters like *o* have their hollows filled up owing to the metal overflowing the mould. Sometimes contiguous letters are also joined together.

The coins in the collection of Sri. Poddar, which are being published elsewhere in this number, had been personally seen by me, but I had not seen his Ahura Mazda coin. Mr. Lahiri has no doubt described the coin as having most defined features, but they do not so appear in the plate (Vol. XIII. Pl. IX. 19). To judge from the plate photograph, the coin appears to me to be from a mould and therefore forged.

I am publishing in this papar two more coins of Ahura Mazda type, issued by Huvishka. Pl. VI. 16 is from the Patna University and Pl. VI. 17 is from the Banerji Collection in the Patna Museum, which the Museum authorities have kindly allowed me to publish. I have seen both these coins in the original and I find that the Patna University coin is die-struck and genuine and the Patna Museum coin is from a

(1) I regret that the reference to the Plate number on p. 175 of Vol XIII is wrongly givin as Pl. IX. 5. It should be Pl. IX. 19.

mould and very probably a forged piece. As both the coins are published side by side in the same plate, the readers can visualise the difference between a die-struck and a cast coin. The nose, the chin and the cheek-plate of the king are quite sharp with well defined outlines in Pl VI. 16, whereas they are relatively hazy and less defined in Pl VI. 17. The same is the case with the outlines of the king's coat on the two coins. On the reverse the letters WOR at X are relatively hazier on Pl. VI. 16. than on Pl. VI. 17. It may perhaps be argued that the vagueness in outlines may be due to extensive wear. The coin, however, shows no signs of wear by use. It is quite in a fresh condition.

The three coins of Ahura Mazda, so far published, are not from the same dies or moulds. The letter W at X on the coin in Sri. Poddar's collection, (*ante*, Pl. IX. 19) is incomplete, while it is entire both on the Patna University and Patna Museum coins. So Sri Poddar's coin is from a different die or mould. The Patna Museum coin shows several letters on the obverse on the left side, which are relatively incomplete on the Patna University coin. Ahura Mazda has a pointed beard on the Patna Museum coin, not so on the Patna University coin. So these coins also are not from identical dies or moulds.

I shall now proceed to describe the coins.

Patna University Coin. Pl. VI. 16.

Gold ; ·8″ ; 120·3 grains.

Obv. : Half length bust of fully armed king, nimbate, to left wearing coat with open collar, a necklace, a cheek-piece, and a crown with a plaque in the centre. The king holds a sceptre in the left hand and a club-like object in the right. Greek legend blurred and truncated.

Rev. : Bearded and old Ahura Mazda, nimbate, wearing an under-wear, a coat and a *chaddar*, holding sceptre in l. hand and a garland in the r. Symbol below the r. hand. Circular legend, beginning at IX, WOR on the left and O MOZDO on the right.

Patna Museum Coin. Pl. VI. 17.

Gold, ·8″ ; 120 grains.

Obv. : As above, but the figure is hazy in outlines. Letters of the legend are better preserved and more entire.

Rev. : Same as above. Beard of Ahura Mazda is pointed. The legend is the same as on the above coin, complete and distinct. Beaded border not so distinct as on Pl. VI. 16 and the flan shows more blank space at the rim than on the Patna University coin,

SOME UNPUBLISHED NĀGA COINS

BY DR. H.V. TRIVEDI, CURATOR, INDORE MUSEUM.

[Pl. V. 1-17]

Several coins of the Nāga dynasty ruling at Padmāvatī, modern Padam Pawāyā in Madhyabhārata,[1] have been published already by Cunningham in *J.A.S.B.*, 1865. pp. 115ff. and in his *Coins of Mediæval India*, pp. 20-24; but his treatment was naturally limited. In a learned article of this *Journal* Dr. Altekar has shown how much important work still remains to be done in the field. The present note aims at noticing for the first time some new types of Nāga coins, which I have recently picked up while sorting and classifying the coins of the Indore Museum. They were purchased from the Archæological Department of the former Gwalior State, which had acquired them from the ancient site of Padam Pawāyā. Like other coins of the type they are die-struck and their metal is copper.

COINS OF BHAVANĀGA

Bhavanāga, who was on the throne of Padmāvatī from *c.* 310 to 345 A.D., was a brave and powerful prince. From his mention in the Vākāṭaka records as the maternal grandfather of the king Rudrasena I, K.P. Jayaswal concludes that the house to which this prince belonged ruled at Kāntipurī in the Mirzapur district in U.P.; but while publishing his coins in the note referred to above, Dr. Altekar has conclusively shown that the dynasty in which this prince flourished ruled at Padmāvatī, i.e. modern Pawāyā in Madhyabhārata, and also that this house distinguished itself by ousting the Kushāṇas from the lower Madhyadeśa. If Bhavanāga was such a distinguished ruler, he may naturally be expected to have issued coins in more than one type; and this we are going to show, since all the eleven specimens published by Dr. Altekar are of the same "trident and bull" type. First we describe the coins, with the preliminary remark that some of them are of new types while the others have peculiarities of their own, offering interesting problems for study. But as they are all blurred, the legend can be made out with some difficulty. For facility of reading, the photographs are given in enlarged size.

1. *A.S.I.*, *A.R.*, 1915-6, pp. 101ff.
2. Vol. V. pp, 21ff.

No. 1.

Size: oval, .4″ by .35″; weight, 17. 75 grains.

Obv.: Trident in the centre in a dotted circle.

Rev.: Circular legend: [*Mahārāja*] *Bhavanā*[*ga*].

Pl. V. 1.

No. 2.

Size: oval, .4″ by .35″; weight, 18. 59 grains.

Obv.: Trident in a dotted circle, partly visible.

Rev.: Circular legend: X, *Mahārāja Bha*[*va*].

Pl. V. 2.

No. 3.

Size: round, diameter .35″; weight, 18. 59 grains.

Obv.: As on no. 1.

Rev.; Legend in a straight line: *Bhava* (too indistinct to come out well in the photograph),

[The legend is doubtful on the original coin itself. *A.S.A.*]

Pl. V. 3.

No. 4.

Size: round, diameter, .45″; weight, 26. 54 grains.

Obv.: Bull to right in a dotted circle.

Rev.: Trident in the lower left corner; circular legend commencing at VII; (*Mahā*)*rāja Bhava*[*nāga*]. Letter *Bhava* are quite distinct. Pl V. 4.

No. 5.

Size: round, diameter, .45″; weight, 48. 75 grains.

Obv.: As on no. 4.

Rev.: Trident in the centre in the lower half; circular legend, VII: *Adharaja* *Śrabhava* for *Adhirāja*-*Śrī*-*Bhavanā*[*ga*]. Pl. V. 5.

The first two of these coins, which are oval in shape, have been selected to show that the Nāga coins are not only circular in form. The present writer has also come across some square coins of the dynasty, which he hopes to publish soon. One square coin of the dynasty was described by Cunningham in his *Coins of Mediæval India*, pl. II, 22. It is interesting to note here that in his article in the *J.A.S.B.* he describes two Nāga coins of the square form, though while doing so, he is not certain that they belong to the Nāga series. Thus the point requires further elucidation and I reserve it for some further occasion.

Coin no. 3 has its own peculiarities, as it shows the name *Bhava* in a straight line and not in a circular form as generally found on the coins of the series. The name is preceded by one letter which too is in the same line and only traces of which can be seen; it is too indistinct to come out in the photograph or in the illustration. It may presumably be taken to be *Śrī*. As the form of the coins shows, there is no space for any other letter on it.

It is also interesting to note that the figure of the bull which is the most popular animal with the Nāgas who were Śaivites, is not an indispensable feature of the coins of Bhavanāga, since these three specimens do not bear its figure, in contrast with all the coins published by Dr. Altekar which have it on them.[1] Of all the coins of this prince which are published by him, only one, i.e. No. 11 shows the bull to right; this probably shows the rarity of this type; and hence I have included in this note the specimens No. 4 and 5 which also show the figure of the bull in the same direction. But from these two specimens some important historical inferences can also be deduced which we proceed to discuss now.

The name of this prince has so far been taken to be either Bhava or Śrībhava, and it is concluded that his title is sometimes *Mahārāja* and sometimes *Adhirāja*.[2] But a fine distinction between the two can be drawn. A careful scrutiny of a number of his coins has revealed that there are two distinct types of legends used by this prince on his coins, viz. (1) *Mahārāja Bhavanāga*, and (2) *Adhirāja-Śrī-Bhavanāga*. Comparing the legends it may be noted that the honorific or royal prefix *Srī* is invariably associated with the title of *Adhirāja*, which, as an epithet of sovereignty, is higher than that of *Mahārāja*, which designates a ruler of a lower status. On the basis of this distinction it may also be inferred that the coins bearing the title of *Adhirāja* and along with it the prefix *Srī* were all struck by the prince in order to commemorate some of his important victories, as suggested by Dr. Altekar. He has just touched the point; but what is interesting to note is the clear-cut distinction between the two sorts of legends and the specific use of the prefix *Śrī*, attention to which has been drawn here for the first time. It need not be said, however, that a large number of pieces will have to be scrutinised before we finally accept the view.

1. The point is also borne out by one coin of the prince without the figure of a bull on it, as mentioned in the *Gwalior Arch. Rep.* for V.S. 1997, p. 56, no. 45, and two similar specimens mentioned in *ibid.*, V.S., 1996, p. 51, no. 77. They are not illustrated, nor are their weight, size and other details given in the reports.

2. *J.N.S.I.*, V, p. 23.

The foregoing discussion shows that the coin types of Bhavanāga which are more than one as described here amply bear out the conclusion drawn from the epigraphic records, viz., that he was an illustrious ruler, and as such, he has been rightly identified by Dr. Altekar with the Bhavanāga of the Vākāṭaka copper plates. His achievements supporting his claim to the title of *Adhirāja* are not known.

VASUNĀGA (Nos. 6-8).

This prince is known only from his coins which are found at Pawāyā along with other coins of the type; and this shows that he belonged to the distinguished Nāga family which is identical with the one ruling at that place. His coins are, however, little known, and therefore I publish some below. They too are die-struck and the metal is copper.

Size: round, diameter, .45″; weight, 33.5 grains.

Obv.: Indistinct figure of an animal (peacock?).

Rev.: Circular legend: ...*Vasu*... Pl. V. 6.
Vasu is at XI.

The Cabinet of the Museum contains another coin of Vasunāga, which is of about the same size and weighs 28. 5 grains; its reverse is apparently blank and on the obverse only *su* can be distinctly read. The *mātrā* has come out more clearly and just following this letter this piece also shows two daggers or short spears as on the coins of Skandanāga (Pl V. 7). Similar objects are also seen on the reverse of a coin of this prince which is in possession of Mr. Advani of Indore; and this coin also bears a beautiful figure of a peacock standing to left (Pl. V. 8). It was also purchased from the Archæological Department of the former Gwalior State. Combining all these observations we may conclude that the coins of Vasunāga bear the figure of a peacock on one side and an object like two daggers or short spears with the circular legend on the other. As the peacock is originally associated with Skanda-Nāga of the house, it may also be presumed that Vasu-Nāga, who has apparently imitated him showing this figure on his coins, was a successor of Skanda-Nāga.

NEW NĀGA PRINCES: RAVI AND PRABHU

Ravi and Prabhu or Śrīprabha are hitherto unknown[1] rulers and their existence is revealed by their coins to be published here for the first time. That they belonged to the

1. Their names do not appear in the list of those of the Nāga rulers given by Dr. Altekar in his *New History of the Indian People*, p.37.

Nāga house of Padmāvatī is evident by a comparison of their coins with those of the other Nāga kings found at that place. They are similar in metal, size, weight and the form in which the legend on them appears. The view is also confirmed by their find-spot. Their description is as follows :

RAVINĀGA

No. 9.

Size : round, diameter ·45″ ; weight, 37.5 grains.

Obv. : Bull to l. in a dotted circle; (not illustrated).

Rev. : To left, an object looking like "a combination of a sickle and arrow"; circular legend commencing at VII : ...*Śrī Ravi*. *Ravi* is at XII. **Pl.V.9.**

No. 10.

Size and diameter the same as of no. 9; weight, 36.4 grains.

Obverse and reverse the same as above. **Pl V.10.**

On both these coins the letters before *Śrī* have not fully come out ; the latter specimen, however, shows some traces which may be restored either as *Mahārāja* or *Adhirāja*. Here it may be suggested that the uncertain object which according to Cunningham looks like "a combination of a sickle and arrow" is to be taken as Śiva's battle-axe, which is quite in keeping with the fact that the Nāga rulers were Śaivites. From the figure of a bull and the battle-axe, shown by these coins on their sides, they cannot be taken as of Vibhunāga which have been published by Dr. Altekar in his article referred to above ; for on our coins the letter *ra* is distinctly visible before *vi*, following which no letter like *bhu* or even its traces are to be seen as on illustrations no. 12 and 13 in *J.N.S.I.*, V. pl. IIA. On our specimens the figure of the bull is also different from that found on those of Vibhunāga or of Bhavanāga.

PRABHUNĀGA

No. 11

Size : round, diameter. 45″; weight 31·95 grains.

Obv. : Lion to l. in a dotted circle. (Not illustrated).

Rev. : Circular legend : *Mahārāja*-Śrī·*Prabhu*; a sickle-like object (*paraśu ?*) separating the beginning and the end of the legend.

Pl. V. 11.

No. 12.

Size : round ; diameter, .45″; weight, 34·55 grains.
Obv. : The same as above.
Rev. : Circular legend ; *Mahārāja-Śrī-Prabha.* Sickle-like object as on no. 11.

Pl. V. 12.

Nos. 13-15.

Average size and weight : the same as no. 12; legend also is the same.

Pl. V. 13-5.

All these five coins, which are almost identical, are published to show an important variation, viz. that the name on No. 11 is Prabhu, the *u-mātrā* being faintly visible, while on the rest it is Prabha. And all these coins make it certain that they are to be attributed to a ruler whose name was either Prabhu or Śrīprabha. He cannot be the same as Prabhākara, another Nāga ruler, as on as many as five coins the name is read as Prabha or Prabhu, there being no *ā-mātrā* attached to *bha*, nor any vacant space after *bha* to contain any other letter. It is also noteworthy that the beginning and the ending letters of the legend are clearly separated by the sickle-like object, as shown above.

[The reading *Prabhu* in my opinion is doubtful. On **Pl. VI 13—15**, the portion of the legend giving the king's name cannot be read ; it can be deciphered only on **Pl. VI. 11-12.** On **Pl. VI 11** only two letters are visible ; they may be *Puna*, *Prana Prato, Prano* or *Prabhā*. The second letter has certainly no medial *u mātrā*. The reading of the first two letters on **Pl. VI. 12** is the same as above, but it is followed by a letter with a pronounced tail to its vertical ; it may be therefore a *ka* or *ra*. There is just a possibility of its being a *ga*, with its right limb prolonged, as is the case in Gupta script. I do not see the medial *u mātrā* to the second letter even on this coin. To me therefore the coin appears to be of Prabhākaranāga. Puṁnāga is also just possible. A coin of the latter ruler was once reported to me, (*anti*, V. 130), but it was not subsequently published. *A.S.A.*]

A COIN OF SKANDANĀGA.

Cunningham has already published[1] the coins of Skandanāga, having Bull and Peacock on the obverse. I am publishing here another coin of his, with a prancing *horse* on the

1. *J. A. S. B.*, 1865, p. 115

obverse, with a crescent in a dotted incomplete circle in its front. This is an unpublished variety.

Metal, copper; Size, ·4″; weight, 37 grains.

Obv. : Prancing horse in the upper right quadrant; in its front a dotted incomplete circle with a crescent in it.

Rev. : ...*dharaja-Ska.*

Ska is absolutely clear, and so there can be no doubt as to the issuer being Skandanāga. **Pl. V. 16.**

A COIN OF BṚIHASPATINĀGA.

Cunningham has published 31 coins of Bṛihaspatināga, having recumbent Bull in a dotted circle on the obverse and the legend only on the reverse. On most of his specimen, the legend is fragmentary, and the name has to be made by peacing together the letters from several pieces.

The coin I am publishing today contains the entire name of the king perfectly legible.. The obverse side has a spoked wheel, enclosing some object, which is indistinct.

Metal, copper; size, .3″; weight, 18 grains.

Obv. : Within a Spoked wheel an indistinct object, probably a Recumbent bull.

Rev. : Circular legend *Bṛihaspati*, quite distinct.

Pl. V. 17.

RECENT FINDS OF GAṄGA FANAMS

By Dr. Dines Chandra Sircar, M.A., Ph.D., Ootacamund

In recent years no less than three hoards of small gold coins, usually known as the Gaṅga *fanams*, were discovered in the Angul and Cuttack regions of Orissa and were acquired for the Orissa Museum. The three hoards contained 40, 58 and 130 coins respectively, that is to say, they together consisted of 228 coins. Another Gaṅga *fanam* was secured for the Orissa Museum in the year 1934. The size of the coins varies between ·37″ and ·42″ in diameter and their weight between 6·87 grains and 8·37 grains. An interesting analysis of the coins was published by Mr. S.C. De in the *Journal of the Kalinga Historical Research Society*, Vol. I, 1947, pp. 367ff.[1]

The reverse of all these coins bears a symbol resembling the Oriya *sa*, placed horizontally above, with the left face downwards, below which stands a number expressed in one numerical figure or two. But in many cases this *sa*-like symbol is flanked by two other symbols looking respectively like the *aṅkuśa* or elephant-goad and the *kuṭhāra* or axe. The *sa*-like symbol was explained by Hoernle as a contraction of the word *Saṁvat* or *Saṁvatsara*, while the number beneath has been regarded by numismatists as the year of issue of particular coins. Mr. De agrees with these views. He takes the numbers on the coins as regnal years of the issuer or issuers, counted according to the well-known *Aṅka* system, adopted by the medieval Gaṅga rulers of Orissa and their successors. The obverse of these coins usually represents a recumbent bull flanked by various symbols. Mr. De has classified the symbols both on the obverse and the reverse of the coins and has published their sketches in several charts accompanying his paper.

Four Plates (which may be referred to as A, B, C and D for the sake of convenience) illustrating 28 of the coins discussed by Mr. De have also been appended to the paper. Plates A and D illustrate respectively 4 and 15 coins, which bear consecutive numbers, while Plates B and C offer respectively 5 and 4 coins which have not been similarly numbered. The illustrations clearly bear out Mr. De's description of the coins. It is however interesting to find that the Plates bear two notes from the pen of the Joint-Editor of the

1. There is a reference to the addition of 49 Gaṅga *fanams* to the Museum cabinet, *above*, Vol. XIII, pp. 91-92. They were formerly in the collection of the ruler of the old Sonepur State ; but they have not yet been published.

Journal saying that the legend *Patna* (probably intending *Pāṭanā*) or its part *tna* (possibly intending *ṭana*) in some cases is clear on the reverse of the coins. It is apparent that the *sa*-like symbol has been read as *tna* and the same symbol flanked by the *aṅkuśa* and *kuṭhāra* symbols has been supposed to be *Patna*. From a foot-note at page 362 of the same issue of the *Journal of the Kalinga Historical Research Society*, it is seen that the Joint-Editor, who offered the above reading of the symbols, is Mr. P. C. Rath, who was Superintendent of Archæology of the old Patna (Pāṭanā) State, now merged in Orissa. It is however a matter of great regret that Mr. Rath considered it wise to offer such an absolutely unwarranted and absurd suggestion. I consider it quite impossible to make out the name of *Pāṭanā* in any form on the reverse of the so-called Gaṅga *fanams* illustrated in Mr. De's paper.

Mr. De's article contains two interesting charts (*op. cit.*, p. 369), one illustrating the forms of the numerals as read by him and the other giving the number of coins bearing a particular year of the *Aṅka* reckoning of the issuers of the coins. It may however be noted that no less than three numerical figures have been deciphered wrongly by Mr. De. In the first place, what has been read by him as 2 is really 7. Secondly, the first of the two figures read as 3 is undoubtedly 2. Thirdly, the figure doubtfully read by him as 7 is actually a slightly modified form of the regular 3. There should moreover have been no query after the figures for 9. The above readings of the numerical figures are supported by numerous medieval Orissan records, both published and as yet unpublished, including the Kendupatna and other plates of Narasiṁha II, Puri Plates of Bhānu II, Puri plates (B) of Narasiṁha IV, Polsara plates of Arkeśvara, etc., etc. Under the circumstances, Mr. De's chart giving the number of coins bearing particular dates, which is full of mistakes, should be thoroughly recast.

With the exception only of three, the numbers on all the other 25 coins illustrated in Mr. De's Plates are clear and can be read satisfactorily. The third coin of Plate A gives the date 22. The five coins of Plate B have respectively the dates 5, 21, 10, 10 and 8, while the four on Plate C have respectively 4, 23, 18 and 2. The fifteen coins on Plate D have similarly 4, 4, 5, 7, 10, 7, 10, 13, 4, 9, 21, 25, 34, 2 and 5.

In this connection it is also necessary to refer to another hoard of similar coins discussed by Mr. P. C. Rath in an interesting but extremely misleading article in the *Journal of the Numismatic Society of India*, Vol. V, 1943, pp. 61-64. The title of Mr. Rath's paper is the "Parimalgiri Hoard of the Gold Coins of [the] Chauhān King Rāmadeva" and it is indi-

cated in a foot-note that the article was written with the help of Dr. A. S. Altekar, editor of the Journal.[1]

It is said that small gold coins numbering 119 were discovered at a place called Parimalgiri in the old Patna State sometime in 1942. Out of these only 80 coins could be secured for the State treasury. Of these again only 12 were discussed by Mr. Rath in his article and were illustrated in the Plate (*J.N.S.I.*, Vol. V, Plate IV, B) accompanying it. Although the representation of the coins in the Plate is not quite satisfactory, many of the mistakes in Mr. Rath's description can fortunately be seen clearly from it.

It is well-known that the obverse of the so-called Gaṅga *fanams* bears such representations as the couchant bull, lion with raised paw, two fishes, Śiva-liṅga, etc. (*J.K.H.R.S.*, Vol. I, p. 370). The obverse symbols of the Parimalagiri coins, as described by Mr. Rath, therefore do not offer any peculiarity at all, although he may not be quite accurate in their description in all the cases. As regards the reverse, Mr. Rath says, "On the reverse of these coins there is a legend in three lines. The first reads *Srī-Rāma*, the second *Patanā* (possibly intending *Pāṭanā*) and the third gives the date of issue in numerals. The dates on the 12 coins illustrated on the Plate are 8, 33, 34, 35, 55, 56, 56, 56, 56, 56, 59, and 33 respectively" (*op. cit.*, p. 62). According to Mr. Rath, Śrī-Rāma was the king who issued the coins and ruled for 59 years as indicated by the eleventh coin illustrated and, since only king Rāmadeva, founder of the so-called Chauhān dynasty of Patna, is supposed (on no satisfactory grounds) to have ruled for 59 years (*circa* 1212-71 A. D.), he must have issued the coins of the Parimalgiri hoard. Mr. Rath also says, "The weight of these coins is slightly higher than the *fanams* of Anantavarman, which seem to have been accepted as his model for weight by Śrī-Rāma" (*op. cit.*, p. 63). The statement about the weight is difficult to understand. The size and weight of the coins are said to vary between .41″ and .44″ and between 7.37 grains and 7.42 grains respectively.

As regards the numerical figures on the Parimalgiri coins, Mr. Rath's readings are unfortunately more inaccurate than Mr. De's. Those numbers which are clear on the Plate and are beyond doubt are the following: Coin No. 3—"24"; No. 4—"21"; No. 5—"11"; No. 8—"17"; No. 9—"17"; No. 10—"17"; No. 11—"19"; No. 12—"22". It will be seen that these numbers, viz., 24, 21, 11, 17, 17, 17, 19 and 22, have been wrongly read by Mr. Rath respectively as 34, 35, 55, 56, 56,

1. The importance of Mr. Rath's paper has been recognised by Dr. Altekar by including a discussion on it in the article entitled "Numismatic Discoveries and Researches during 1941-50" published *above*, Vol. *XIII*, pp. 1 ff. (vide p. 15).

56, 59 and 33. He has thus read 5 in place of 1, 3 in place of 2 and 6 in place of 7. The highest number exhibited by the coins is 24, although Mr. Rath speaks of 59. The numbers 56 and 59 in Mr. Rath's readings, on which the suggestion regarding the length of the reign of the issuer of the Parimalgiri coins as well as his identification with Chauhān Rāmadeva of Patna are based, are really 17 and 19 respectively and would hardly support the theories propounded by Mr. Rath.

What has been read by Mr. Rath as *Paṭnā* (probably intending *Pāṭanā*) is the same as the symbols described by Mr. De as the Oriya *sa* flanked by the *aṅkuśa* and *kuṭhāra*. It is really unfortunate that the central one of the three symbols, which is commonly found on the Gaṅga *fanams* either singly or flanked by other symbols, were not recognised as such. Mr. Rath's editorial comment on Mr. De's article, noticed above, seems to show that, in his opinion, all such coins were issued from Patna by its so-called Chauhān rulers. Needless to say that the theory is absolutely unwarranted. It is not easy to prove that the petty rulers of Patna ever issued any gold coins or even any coins at all. In case the central top symbol is really an Oriya *sa*, the coins may be palaeographically assigned to a date not much earlier than the rise of the Sūryavaṁśīs of Orissa in the fifteenth century.

As regards Mr. Rath's reading *Śrī-Rāma*, I am sorry to note that the plate is not satisfactory enough to enable me to verify it. Even if however the reading *Śrī-Rāma* is accepted, it is not easy to determine its real import and to identify the issuer or issuers of the coins in question.

Under the circumstances, I consider it extremely desirable that the so-called Gaṅga *fanams* referred to in these lines, especially those on which Mr. Rath has written in the *Journal of the Numismastic Society of India* should be re-examined by more careful students of Indian epigraphy and numismatics.

Before concluding this note, I may refer to the forms of the numerals that have been wrongly read by either Mr. De or Mr. Rath or by both of them. The figure 1, which has been read correctly by Mr. De and wrongly by Mr. Rath, is of the Telugu-Kannaḍa type and resembles a convex. It is found in many medieval Orissan records including the Kendupatna plates of Narasiṁha II (cf. *J. A. S. B.*, Vol. LXV, 1896, Part I, Plate VIII, left margin). The figure 2 is of the medieval Bengali type and resembles the modern forms of Telugu and English 3. For its occurrence in medieval Orissan records, see *ibid.*, Plate X, left magin, and Mazumdar, *Orissa in the Making*, Plate facing p. 202, line 22. This figure

has been read wrongly both by Mr. De and Mr. Rath. The figure 3 is of the Devanāgarī type sometimes showing slight variation in the form (see *J. A S. B.*, *op. cit.*, Plate XII, left margin; Mazumdar, *loc cit.*). The figure 7 is of the usual type which stands midway between its modern forms in Oriya and Bengali and resembles a staff with its head considerably carved towards the left. It is found in numerous early and medieval records from different parts of India (*vide* Ojha, *Palaeography of India* in Hindi, Plates LXXI, LXXV, LXXVI).

A NEW COIN OF BHARTṚIDĀMAN[1]

By J.M. Nanavati, M.A. Rajkot.

[Pl. V. 27]

The earliest known date for Bhartṛidāman as Kshatrapa was 201 (Śaka era) according to Rapson, but according to Dr. D.R. Bhandarker the Sarvania hoard shows that he was ruling as Kshatrapa at least one year earlier. The earliest and the latest known dates for him as a Mahāksatrapa, according to Rapson, were 211 and 217 respectively, but Dr. D. R. Bhandarker has shown[2] that a coin in the Sarvania hoard shows that Bhartṛidāman had ceased to reign as a Kshatrapa and to have commenced to rule as Mahākshatrapa in the year 204.

A coin in the cabinet of the Watson Museum shows that he continued to rule for three years after 217, i. e. down to 220. The reading of this date is not certain, as the numerical symbols are blurred. It may be added that the date 220 was read doubtfully by the Rev. H. R. Scott also, who mentions a coin of Bhartṛidāman as Mahākshatrapa, the date on which appeared to be 220. Rapson has observed that this date must remain very doubtful until a better specimen is found.[3]

I am publishing here this coin in the Watson Museum.

Silver ; round ; weight, 33 grains.

Obverse : Bust of the king facing r. Behind head, date, 200,20.[4]

Reverse: Three-arched crescented Hill, crescent on l. and star on r.; wavy line below.

Legend : IX *Rudrasanaputrasa rajna......rṭri* Pl. V. 27

1. I have reeeived valuable suggestions from the editor in preparing this paper.
2. *A.S.I.,A.R.*, 1913-!, p. 227.
3. *J.R.A.S.*, 1899, p. 394
[4. I could detect faint traces of 200 in the photograph, but no trace of 20 was visible. The coin therefore does not supply the needed proof to show that Bhartṛidāman continued to rule as a Mahākshatrapa down to Śaka 220. Of course he could have continued as a Mahākshatrapa down to Śaka 226, upto which time his son was ruling as a Kshatrapa. But numismatic proof is still lacking to prove this proposition. A.S.A.]

A NOTE ON TWO COINS OF EASTERN KALACHURIES.

BY PARMESHWARI LAL GUPTA, M.A., BANARAS.

Mahamahopadhyaya Prof. V.V. Mirashi has published a learned article on the coins of the Kalchuries in this *Journal*[1] and discussed all the available material thereon. There is now little to add to it. This note is just to point out certain facts about the following two coins of the Kalachuries of Mahākośala, which he has described in his paper.

1. Coin of Ratnadeva.

No. 9 ; copper ; ·6″ wt, 23½ grs.

Obverse. (1) (*Śrī*) *Mad-Ra.*
(2) (*tna*) *deva.*

Reverse. A sheathed dagger below some indistinct objects.[2]

2. Coins of Pratāpamalla.

No. 18 ; copper ; ·75″; wt. 29grs.

Obverse. (1) *Srimat-Pra*
(2) *tāpama*
(3) (*lla*)*deva.*

Reverse. Some indistinct device, flower and leaves (?), with a sheathed dagger below.[3]

Discussing the latter coin Prof. Mirashi has observed that the seal of the Pendrabandh Plates has 'a sheathed sword or dagger below the legend as on the coins of this king (i.e. Pratāpamalla).[4] Probably he meant to suggest that these kings had issued coins in copper with the motif of sheathed dagger, which was their royal seal. This suggests that they had introduced a new device on their copper currency, which was not known elsewhere.

The gold coins of the Kalchūries of Mahakośala have the *gajaśārdūla* motif, lion jumping upon an elephant, which has been

1. *J.N.S.I.*, Vol. III, p. 21-39.
2. *Ibid.* p. 31.
3. *Ibid.* p. 33.
4. *Ibid.* p. 33.

correctly identified for the first time by Śrī. B.N. Nath.[1] The Hanumān of Chandela copper coins was copied by them with a slight variation. It therefore appeared to me something unusual that these kings should issue an altogether new device of sheathed dagger on their copper coins. It aroused my doubts about the identification of these coins. And I carefully examined the plate acompanying the article,[2] where these coins are reproduced as coins Nos. 9 and 18 respectively and I found that my suspicion was well founded.

These coins have the Goddess device of the coins of Gāṅgeyadeva, which had been very popular in North India and it was imitated by the Chandelas, the Gāhaḍavālas and the Tomaras. The Mahākośala Kalchūries have also followed the same tradition and copied this device on their copper coins.

A careful study of the plate would show that on coin No. 9, what has been described as a sheathed dagger is nothing else but the folded legs of the Goddess; just above it are her two hands with the head in the centre and the two earings on the either side. Below the legs which resemble a sheathed dagger, is the lotus, which is indicated by dots. With this picture in view, it is not the least difficult to identify it as Goddess. Similarly coin No. 18 has also the figure of the Goddess. The circle on the top is the head; on either sides are the upraised hands. The two horizontal lines are the torso and below are two legs turned towards the left. Traces of the lotus in the form of the dots are at the lowest edge.

The mint-masters of these kings are notorious for their very crude art. The crudeness with which they had engraved the Gajaśardūla had baffled the numismatists like Cunningham, Hoernle and Rapson. It is no wonder if Mahamahopadhyaya Mirashi could not identify the crudely executed Lakshmī.

EDITOR'S NOTE.

The coins illustrated by Prof. Mirashi belonged to Mr. Lochana Prasad Sharma of Balapur. I could not succeed in getting any information for a fresh examination of them. I agree with Mr. Gupta that *prima facie* the figure on Pl. III. 18 of Vol. III of this *Journal* resembles that of Lakshmī, very crudely drawn. But on Pl. III. 9 the resemblance to a dagger in greater than that to the legs of a human figure.

Lakshmī usually occurs on the gold and silver coins only on the coinage of the Gahaḍvālas, the Kalachuris and the Chāhamānas.

1. *Ibid.*, Vol. XIII, p. 199.
2. *Ibid.*, Vol. III, pl. III.

SEALINGS FROM NĀLANDĀ AND VAIŚĀLĪ

BY ADRIS BANERJI, M.A., NEW DELHI.

A

Some interesting Sealings from Nālandā.

The excavation of the monastic ruins at Nālandā have yielded a few sealings which mention a class of learned Brahmins known as *Traividyas*. I propose to discuss six of these sealings and to discuss the implication of the term as found in the Sanskrit texts.

No. 1. Circular area made by thick lines which is divided into two unequal segments by two lines. In the upper segment a three-headed divinity, holding an *akshamālā* and *kamaṇḍalu* in right hand (*Brahmā*).

Legend in the lower segment: *Mṛikshakalpake-traividya-brāhmaṇa(sya*)*[1]; (S. I. 801).

No. 2. Oval area; Seal very much damaged. In the upper segment the figure of Brahmā with *akshamālā* and a long necked amphora or water bottle, similar to that found in the *Nāga* figures of the seal of the *Chāturvidyas*.[2]

Legend in the lower segment: *Srīman-Navakarmma = āṭṭhā-naṁ (āsthānaṁ) Traividyasya*; (S.I. 691).[3]

No. 3. Defaced irregular circular sealing probably with the figure of Brahmā.

Legend below: .... *Katak = āgrahare-Traividya [sya*]*; (S.I. 782).[4]

No. 4. Circular field within bead border. Two thick lines dividing it into two unequal segments. In the upper segment, the crescent-moon and the sun, on either side of a pot-bellied three-headed divinity (Brahmā), seated on lotus. The right hand holds rosary and the left hand holds a water jar. Unidentifiable tree on the proper left side of the divinity.

In the lower segment legend: *Bhallāṭaka-vāṭak = āgrahārasya śrīmat = Traividyasya*; (S.I. 350).[5]

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1. *MASI* No. 66, p. 55, pl. vi (h).
2. *JNSI.*, vol. xii, pp. 176 f.
3. *MASI*, no. 66, pl. vii (a); cf. also *E.I.*, vol. xx, p. 30.
4. *Ibid*, p. 56, pl. vii (b).
5. *Ibid*, p. 56, pl. vii (c).

No. 5. Circular field : upper part has Brahmā[1] with identical objects.

Lower part has the legend :— .... *grāma-Traividyasya* (S.I. 834).[2]

No. 6. Elliposid field divided into two unequal parts by two thick lines with depression between them.

Upper field has a Nāga figure with a long necked amphora in left hand and a rosary in left. To the left of the figure is a symbol, either a *stūpa* or a *liṅgaṁ*. Most probably a *stūpa* with a *harmmikā* and umbrella. Beside the *stūpa* a Tāla tree.

Below : *Srī-Purik=āgrahāre Traividyasya.*[3]

The find of these six sealings of the learned Brāhmaṇa community, living at six different places in the ancient Magadha country in the floor of a mediæval Buddhist monastery is not without significant interest. Two explanations are possible. The first suggestion is that letters from *Traividyas* had been received by the learned monks residing at Nālandā, possibly on interpretations of their mutual dogma, rituals, practices, philosophical speculations etc., which were ultilised in the later building, out of the dumps made by the earlier inhabitants when erecting the later Pāla monastery.

A second explanation is also possible. Nālandā has furnished us with kilns at two different places ; one near Temple No. XII and another within the courtyard of a monastery. These may indicate that Nālandā was a centre for metallurgical works. The monks at Sārnath were master weavers and physicians, those at Ajantā were good painters ; those at Nālandā were good metallurgists. Hundreds of metal images recovered from Nālandā confirm this conclusion.

Among the images recovered at Nālandā, there are some of Jain pontiffs and some of Hindu deities. It is quite likely that Hindu temples and institutions were getting their images and seals manufactured at the Buddhist establishment of Nālandā. The Traividya seals may have accompanied letters giving orders for Hindu images or seals.

We find that the *Traividyas* were a large and flourishing community in an area, which our great scholars have always taken to be the cradle of Buddhism. I had occasion to draw the attention of the scholars to this charming feature of religious concord and communal amity in my paper "Triveni", where I have tried to draw a picture of the origin and development of

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[1. It is interesting to note that the Traividya Brāhmaṇas of five out of the six places had selected Brahmā as their deity. The reason is not far to seek. The image of Brahmā always carries the Vedic *pustaka* in its hand. A.S.A.]

2. *Ibid*, p. 56.

3. *Ibid*, p. 56, pl. iv (f).

the famous Nālandā University and its many sided activities and interesting topographical features. The existence of religious edifices in the neighbourhood of Nālandā, belonging to other religious communities, not being mentioned by the Chinese travellers, have not received the attention from the scholars that they deserve. I would again like to emphasise the fact that learned Brahmin communities led a peaceful and honorable existence in ancient Magadha, when Buddhism was flourishing there. The communal hatred of later days seems to have been introduced by the *Vajrayāna* priesthood, as is proved by the references in their texts. But this is quite inconsistent with the gentle creed preached by Lord Buddha and the spirit that is breathed in the *Suttas* assumed to have been preached by him. That spirit seems to have survived till the time of Aśoka.

Traividya Brāhmaṇas of the six different places, whose seals we have recovered at Nalanda, must have got their peculiar designation owing to their being masters of the three Vedas. That is the general meaning of the word. My friend Prof. S. K. Bhattacharji, Professor of Sanskrit, Muralidhar Girl's College, Calcutta, however, informs me that the *Harivaṁśa* used this term for those who followed agriculture, commerce and dairy farming.[1] Very probably the Traividya Brāhmaṇas of medieval Bihar did not belong to this category.

B

A Basarh Sealing

In the working season of 1903-04, the late Dr. Th. Bloch found a sealing, which has gained in significance. This is an oval sealing with oval area (1″ x $\frac{7}{8}$″). Dr. Bloch described it as "Man with a tail holding down a Bull by the horns". Legend : *Prāyuktaka.*[2]

The correct description is : Man wearing a short scarf, whose ends are shown almost in the fashion of a fillet behind the king's head as in some Indo-Bactrian issues, holding the Bull by the horns. Legend *Pr=āyuktaka.*

Half a century has passed and still its meaning remains unappreciated. Yet, it is probably one of the most interesting and unique finds made by late Dr. Bloch; whose merits remained unrecognized, when Harappa culture became well appreciated. This reason has suggested this note to me.

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1. कर्षकाणां कृषिर्वृत्तिः पण्यं विपणिजीविनाम् ।
गावोऽस्माकं परा वृत्तिरेतत्त्रैविद्यमुच्यते ॥
Harivaṁśa 3809 (Cal. Ed).

2. *AR.*, *ASI.*, 1903-04, p, 109, no. 19, pl. xli, no. 17.

The Bull games in such fashion generally suggest Mithraic associations ; and on seeing the sealing I was tempted *at once* to identify it as 'Mithra sacrificing Bull.' But my instincts, which had been trying to collect traits of Cretan culture in Indian civilisation, told me that it must be the Bull game, whose pictures in *Palace of Minos at Knossos*, I had gone through as a boy of 14 in rapturous admiration in 1923, when the first antiquities from Mohenjodaro were shown to late Dr. Rabindranath Tagore by their discoverer in our Simla Street house.

It will be re-called, that the late R.D. Banerji tried to establish Indo-Cretan affinities over his first finds, for which he was ridiculed by Sir John Marshall, who claimed personal aquaintance with Cretan antiquities under the British School of Archæology at Athens.

Fortunately he had perceived correctly ; and at least, one Cretan feature was established shortly after his death by the Hungarian archæologist Dr. C.L. Fabri, a nephew of the late Sir Marc Aurel Stein. In a very charmingly written paper contributed to the *Annual Report of the Archæological Survey of India*, 1934-35, on "The Cretan Bull-grappling sports and the Bull sacrifice in the Indus Civilisation", he established its existence. Later in his *Further Excavations at Mohenjodaro*, the late Dr. E.J.H. Mackay tried to resurrect the river front and ghat theories of late R.D. Banerji.

The existence of this type of sports and Bull sacrifice in pre-historic Crete and chalocolithic India raises a just postulate about the antecedents and correct interpretations of the so-called Mithraic sculptures in the Middle and Near Easts. But that is a question with which we need not concern ourselves in these pages.

To quote Dr. Fabri, "Now I believe that I have found a few representations on Indus Valley seals, which show a ritual practice that is well known to us from prehistoric Crete. Indeed, the correspondence is so absolute, the agreement shows such a perfect identity in important details, that a separate invention of this ritual seems to me entirely out of question. I allude to the famous Bull-grappling and sacrificing of Minoan Crete, known in later times in Thessaly as TAUROKATHAPSIA. This ritual is distinctly divided into two parts, and is represented always separately as such in Crete : (1) the bull-grappling games, and (2) the subsequent sacrifice of the bull to the Mother Goddess. It is as well to add here that the Indus Valley representations agree even in this detail : they also show the two parts of the ritual in

separate seals. I shall, therefore, deal with them separately."[1] These generally belong to Middle and Late Minoan Periods (*c.* 2500-1500 B.C.).

The Vaiśālī seal shows a man holding the horns of a bull, just as the lady is doing in fig. 1 or the Harappa man in fig. 6 in the illustrations accompanying Dr. Fabri's paper in *A.S.I. A.R.*, 1934-5.

In India, Dr. Fabri has shown that the identical games are found on seal Nos. DK. 9281 and 8321 of Mohenjodaro ; while DK. 8120, DK. 4547 of Mohenjodaro show the final sacrifice. Therefore their occurrence in India, in *c.* 1500-1700 B. C., cannot be ruled out. The most interesting point, however, is that in Crete the ladies are shown wearing short scarfs ; it is the end of such a scarf that is found represented on Basarh sealing, which was mistaken as a tail.

The conclusion is that in *c.* 300-400 A.D., in the Gupta age of Indian history, the pre-historic Bull grappling sport and possibly final sacrifice too survived ; and was represented on a seal. It is indeed unique phenomenon.

1. *AR.*, *ASI.*, 1934-35, p. 93; and Sir Arthur Evans, *The Palace of Minos at Knossos* vol. iii, pl. xix, figs. 123, 128-29, 143-47; pl. xxi, figs. 148-54; 157-59 quoted by Dr. Fabri.

SOME OBSERVATIONS ON THE PUNCH-MARKED COINS OF KASRAWAD HOARD.

By Parmeshwari Lal Gupta, M.A., Banaras.

In an earlier number of this *Journal*[1] Sri D. B. Diskalker has published a paper on a hoard of 36 silver punch-marked coins, that were found in the excavations at Kasrawad. I had an opportunity to examine these coins through the kindness of Dr. A.S. Altekar, when they were sent to him by Sri Diskalker along with his paper. Later on I again examined them with the kind office of the Curator of the Indore Museum, Dr. H. V. Trivedi. Now, I take this opportunity to add to his paper some of my observations.

None of the coins of this hoard are of unknown variety, and they may be tabulated as follows :—

Varieties 1, 2, 3,	$40H_3$ of Durga Prasad ; Patraha II. IX. i ; *B. M. C.* I. I.*a* and *b* (Fourth symbol not accurately deciphered there).
Varieties 4 and 5	*B.M.C.* 2. II. *a*.
Varieties 6 and 7	*B.M.C.* 2. III. *f*.
Variety 8	*B.M.C.* 2. IV. *m* (Some of the symbols not fully deciphered).
Variety 9	*B.M.C.* 2. IV. *u* (Fifth symbol incomplete).
Variety 10	*B.M.C.* 2. VII. *k* (Second symbol not accurately given in the text as well as in the introduction).
Variety 11	*B.M.C.* 2. X. *b* (Fifth symbol partly deciphered).
Variety 12	*B.M.C.* 2 XI. *c* (Fourth symbol inaccurately deciphered).
Variety 13	*B.M.C.* 6. I. *h*.
Variety 14	*B.M.C.* 6. II. *e* (Bull symbol partly identified).

SYMBOLS ON THE COINS.

1. *Six-armed Symbols*. All these coins have Sun and Six-armed symbols in common, but the form of six-armed symbol is different on different varieties. Varieties 1, 2, 3, 4,

1. Vol. X, p. 146.

5, 6, 7 and 9 have the six-armed symbol having three arrow heads and three taurines alternately placed.

This symbol has been assigned by Sri Diskalker on the coins of varieties 10, 11 and 12 also. But on the coin of variety 10, we find another form of symbol, which has, instead of three taurines, only two taurines and an object like **I** in place of the third. This form of **I** is not very easy to decipher on the coins, since we do not generally have complete symbols. This form of the symbol and its identification is well discussed by Sri Walsh,[1] and I hardly need any thing to add to it.

The single coin of variety 11 has a single arm on the coin punched. The coins of this variety illustrated in *B.M.C.* also have their symbol incomplete, and so we are unable to complete its form. But in view of my observations of coins of different hoards, I think that this variety should have some other form of the symbol, which can only be identified when some good specimen becomes known.

The coins of variety 12 also have only a partly punched six-armed symbol. I have examined a number of coins of this variety from other sources; but such evidence as is available seems to show that the symbol consisted of arrow-heads and taurines. It is not unlikely that this symbol occurs on the variety 12 of this hoard. But this particular symbol is generally to be found on a coin having the Crescent-on-the hill.

Sri Diskalker states that the coins of varieties 4 and 9 have the six-armed symbols with ovals instead of taurines. But this is not the case. No coins of these varieties are so far known to have any other variety of six-armed symbol than the one having three arrows and three taurines; and I did not find any trace of ovals on the coins of the present varieties in the Kasrawad hoard.

Variety 8 is constituted of a single coin (coin 21). Only two arms of the symbol are visible on the coin, but *B.M.C.* has given three arms as (i) four dots, (ii) arrow and (iii) fish.[2] Babu Durga Prasad has illustrated two varieties of the present class having two different types of six-armed symbol; one having (i) Seven dots, (ii) taurine and (iii) a Line along with three arrows placed in between them; the other has in between the three arrows (i) Fish, (ii) Taurine and (iii) Svastika.[3] But Bhattacharya has identified only one type of this symbol as having (i) Seven dots, (ii) Fish and (iii) a Line.[4]

1. *Ante*, Vol IV., p. 109.
2. *B.M.C.*, p. 37
3. *N.S.* XLV, pl. XVI.
4. *A.S.I.*, *Memoirs*. No. 62, p. 34.

And I think that this is the correct form of the symbol on the present coin.

Varieties 13 and 14 are correctly described as having the six-armed symbol having three ovals, and a small taurine within ovals respectively.

Dog-with-pup-in-the-mouth. In my enumeration of varieties in the beginning, I have put the varieties 1, 2, 3 together as they have common marks on the obverse. Sri Diskalker has identified on these varieties a simple dog as the fourth mark, but in fact it has a pup in its mouth. None of the coins of the present hoard has the complete mark, but the part of the pup could be seen on the coins. This symbol was not fully identified in the *B.M.C.*, but Dr. Puri in his *Excavations at Rairh*[1] has identified it fully and also Sri Bhattacharya[2] and Babu Durga Prasad[3] in their respective works.

Bull. On coin 7 of variety 3 Sri Diskalker identifies a bull facing left instead of elephant as the fifth mark. But there is not the least doubt that the elephant has been mistaken by Sri Diskalkar as bull facing left. If the coin illustrated on Pl. IX A of the *Journal* (Vol. X) be seen putting the narrow portion of the coin downward, the mistake would be apparent. No coin of this variety with bull symbol has so far been noticed.

Variety 2 is also the same as variety 1, but the description of this variety given in Mr. Diskalkar's paper is ambiguous. The discription gives the idea that the obverse and the reverse have common symbols and that one of the coins has an additional mark of the triskelis. The description should have been as 'having the same obverse and reverse as has variety 1 with an additional countermark of triskelis on the reverse.'

THE PUNCHING OF THE SYMBOLS.

Since long the order of the punching of the symbols on the punch-marked coins is worrying the scholars and they have attempted to find it but without success. Sri Diskalker was inclined to assume that since the Sun and *Shaḍārachakra* (which I would prefer to call Six-armed symbol) are usually found on the coins, they must have been punched before the rest. However he found that they are sometimes punched later and over other symbols. This added to his difficulty in fixing the order of five symbols in a particular variety.

In fact there was no order of the punching of the symbols; but the coins had a fixed group of symbols and every symbol

1. *Excavations at Rairh*, pl. XXVII.
2. *Opp. Cit*, p. 64.
3. *Opp. Cit.*, pl. XX, No. 127.

had a definite place in the group of five symbols on the coins; and they could be recognised easily inspite of their haphazard punching. I have elsewhere discussed in detail the grouping system of the symbols on the coins.[1] Here I can only say that the Sun and the Six-armed symbols may be assumed to be constant, and the other three symbols can very well be classified as class, group and variety marks and distinguished as third, fourth and fifth symbols. Here in this hoard, coins 1 to 20 and 22 have a common class symbol—'Three-arched hill with crescent'. As such all these belong to one class. Within this class, coins 1 to 7 have another common symbol,—Dog-with-a-pup-in-its-mouth; coins 8 and 9 have Peacock-on-the-hill, coins 10 to 20 have caduceus and coin 22 has the symbol which has been named by Sri Diskalker as Hay-stack-on-post-in-a-square; I would prefer to call it a hand-palm-in-a-square. All these symbols are group symbols and may be placed as fourth symbol. The remaining fifth symbols on the coins are the variety marks, which vary on every variety of coins. Once this type of scientific classification is recognised and symbols are classified after the study of a number of hoards, there would be no difficulty in recognising the symbols at their proper places.

THE MODE OF PUNCHING.

While referring to the weight of the coins, Sri Diskalker describes the mode of the punching of the symbols. He has suggested that the symbols were first punched on a silver plate and afterwards the required pieces, expected to weigh near about the standard weight, were roughly cut out by scissors. As a result of this method very often the pieces cut out could preserve only parts of the symbols. But I do not agree with this view. First the pieces were cut out of the metal sheets of the required weight and then the symbols were punched over them. The fragmentary symbols seen on the coins are not due to subsequent cutting of the metal sheet, but due to the smaller space of the flan and the necessity of having all the five symbols accommodated on the coins. They have to remain incomplete sheerly for want of space. We often find incomplete designs on die-struck coins also for the same reason. This can very well be understood, if we look to those punch-marked coins that are made of flattened globules which were obviously not cut out from metal sheets.

THE DIFFERENCE IN WEIGHT

Next, Sir Diskalker attributes the difference of 5 to 6 grains in the weight of the coins of the same variety, not to

1. *J.N.S.I.*, Vol. XII, p. 137-140.

wear in use, but to the irregular cutting of the pieces, as it was not possible to be quite accurate about the weight of the pieces. He therefore thinks that the people in those days were not very particular, if a piece weighed slightly more or less than the standard weight. If the weight was considerably more than the required weight, a portion of the piece was cut out. While it is true that it is not possible to cut a piece of metal with precise accuracy of the standard weight, the difference in weight among the coins cannot be attributed to this factor alone. The wearing does bring about some decrease in the weight and we shall have to make some allowance for it. It is not unlikely that fairly great care might have been takan about the accurate weight of the coins. Generally no fresh coins are found in the hoards to determine the accuracy of the weight, so various explanations are given for the difference in weight.

COMPOSITION OF THE HOARD.

The study of the composition of the hoard is very essential for the determination of the currency of various varieties of coins in the different parts of the country. I have shown its importance in two papers published earlier.[1] The present hoard is a small one and consisted of only 36 coins; so it cannot be much helpful to our purpose; still it is interesting. Except three varieties, all the other varieties in the present hoard are constituted of one coin each.

The highest number of the coins of a single variety in this hoard is of varieties 6 and 7; both are really one variety, since they have common obverse symbols. The coins of this variety belong to Caduceus group of the Mauryan coins with the fifth mark as a Human figure. The fifth mark is seen in its exact form on the cast and die-struck coins from Ujjayini.[2] Punch-marked coins of this very variety are known from Ujjayini and Bhilsa in sufficient numbers; the former are with my friend Śri Ramashanker Rawat and the latter with me. Sri N. R. Advani of Indore also has a large number of coins of this variety in his collection, collected from various places in Mālwā. As such this coin type can very well be assumed to be the coins of that locality. But a hoard of 132 coins found at Rairh includes 115 coins of this type[3] and I had an entire hoard of 280 coins consisting of this variety alone from Azamgarh U. P.[4] As such this variety seems to have prevailed

1. *Ante*, Vol. XII, p. 146-148; Vol. XIII, p. 66-68.
2. *B.M.C.*, *Ancient India*, p. 248.
3. *Excavations at Rairh*, Pl. XXVIII.
4. *Ante*, Vol X, p 46. It is regreting to note that this hoard along with many other valuable coins has recently been stolen away.

in a wider area. But since it is conspicously absent from the hoards of the Punjab and North-western provinces in the west and Bihar in the east, it can be well presumed that it was confined to Uttar Pradesh and Madhya Bharat or the ancient Madhyadeśa.

The next variety having the highest number of coins is variety 12. The hoard has nine coins. This coin type is also conspicously absent from the eastern and the north-western India. I have elsewhere shown[1] that it is known only from Mangraul (Hinganghat) hoard, Ahraura hoard and a hoard in Bharat Kala Bhavan, Banaras of unknown provenance, besides the present hoard.

The third variety consists of 7 coins is the varieties 1, 2, 3 ; all these are in fact one variety. This type of coins is known from many hoards from Taxila to Bihar, so no snggestion can be made at present about the locality, where it originated.

1. *Ibid*, p. 44-45.

PLACE OF GHAṬOTKACHAGUPTA IN THE GUPTA CHRONOLOGY.

BY PARMESHWARI LAL GUPTA, M.A., BANARAS.

Mr. J. Allan has published in the *Catalogue of the Gupta coins*, a coin of Archer type from the Leningrad Museum, which has the name *Ghaṭo* under the arm of the king and bears traces of a marginal legend ending in (*gu*)*pta*(*ḥ*). On the reverse is the legend *Kramāditya*.[1] He has placed this coin among the unattributed ones. The initial *Ghaṭo* and *guptaḥ* in the margin naturally suggest that the name of the issuer of the coin was Ghaṭotkachagupta.

On the basis of fabric and style the coin may be placed among the later kings of the Gupta dynasty, but he cannot be later than Budhagupta, since the letter under the feet of the king is lacking, which is the characteristic of the coins of the kings later than him.[2] Allan thinks that its style, notably the treatment of the legs of the goddess on the reverse, suggests that he was contemporary with Kumāragupta II.[3]

We know a Ghaṭotkachagupta from a fragmentary stone inscription found at Tumain in Dist. Guna, Madhya Bharat. It refers to Chandragupta II, his son Kumāragupta I and to one Ghaṭotkachagupta who 'won by the prowess of his arms the good fame attained by his ancestors.' The date of the record is 116 G.E. when Kumāragupta I was ruling the earth.[4] From the contents of the inscription it appears that this Ghaṭotkachagupta was one of the direct descendents of Kumāragupta I[5] and was probably his son or brother,[6] most likely the former[7].

It is not difficult to identify the issuer of the coin with Ghaṭotkachagupta of the inscription. It is very likely that Ghaṭotkachagupta of the inscription might have succeeded to imperial throne sometime later and issued the coin. Two possibilities are there. Either he succeeded his father (or brother) Kumāragupta I, or he succeeded his brother (or nephew) Skandagupta. In any case his rule was extremely short. If he succeeded Kumāragupta I, he retained the

1. *B.M.C.*, p. 149 ; pl. XXIV, 3 ; introduction, p. liv.
2. *J.N.S.I.*, Vol. XII, p. 32.
3. *B.M.C.*, intro. p. civ. (He compares the coin with Kumārguptā's coins of class I.
4. *Ep. Ind.*, Vol. XXVI, p. 117.
5. Raychaudhury, *Political History of Ancient India*, (fourth edition) p. 481.
6. Majumdar, *The Vallataka-Gupta Age*, p. 174.
7. Ghosh, *Early History of India*, p. 264, 266 ; Sirkar, *Select Inscriptions*, p. 299, f. n. 4.

throne for a few months only, as the last known date of Kumāragupta I and the earliest known date of Skandagupta is the same 136 G. E. In this case Kumāragupta might have died in the earlier part of the year, and Skandagupta would have succeeded in the later part. If he succeeded Skandagupta, his date would be some time between 148 and 155 G. E. And in this case he may have a somewhat longer reign.

But elsewhere I have suggested that Ghaṭotkachagupta preceded Skandagupta, as certain facts indicate that the latter was not the legal heir to the throne.[1] But this suggestion did not find favour with scholars, as they wanted something more to substantiate it.[2] Fortunately the big Bayana hoard has brought to light an evidence of an unimpeachable character to support the suggestion.

There is a solitary coin of the Chhatra type with the legend *Kramāditya* on the reverse. The obverse legend on it is not full and does not disclose the personal name of the issuer. We can only read *Vijitavanira* as the portion of the legend. Dr. Alteker has discussed the identity of the issuer and has admitted the possibility of the issuer being Ghaṭotkachagupta of Mālwā, since like Skandagupta, he also had the epithet of *Kramāditya*, which is found on this coin. But he prefered to attribute it to Skandagupta on the ground that his silver coins have the legend beginning with *Vijitāvaniravanipatiḥ*.[3] This argument, however, is not convincing. The legend beginning with *Vijitāvaniravanipatiḥ* was a common one on the coins of Kumāragupta I, and is known on his gold coins of the Archer type var. *a*[4]. As such this was a well known legend, and may have equally been used by Ghaṭotkachagupta, in case he succeeded Kumāragupta I. As such, there is nothing for the present which may help us in the attribution of the coin either to Skandagupta or to Ghaṭotkachagupta.

Now let us examine the coin independently. Among the types issued by Gupta emperors, the coins of the Chhattra type are the rarest. In all probablity this type was issued by the kings to commemorate their coronation. As such this coin type must be the earliest issue of its issuers. This is also borne out from the hoard itself, where it is the solitary coin representing its issuer.

Skandagupta had issued coins of two weight standards, one of 132 and the other of 142 grains. The coins of 142

1. *I.H.Q.* Vol. XXII p. 318.
2. *Ibid,* Vol. XXIII, p. 72.
3. *J.N.S.I.*, Vol. IX, p. 73-74.
4. *B.M.C.*, p. 61.

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grains weight are considered to have been issued by him late in his reign. On the coins of the light weight standard, which are known in his two types, the 'Archer' and the 'King and Queen', Skandagupta did not adopt any title, but mentioned simply his name as *Srī Skandaguptaḥ*.[1] Only on the heavy weight coins we find his epithet *Kramāditya*. This suggests that Skandagupta did not bear the epithet in the early part of his life.

Now, the present coin is of the Chhatra type and weighs only 132 grains, but has the epithet *Kramāditya* for its issuer. So this coin cannot be of Skandagupta. Had this coin been his, we ought to have his name on the reverse instead of *Kramāditya*; or if it had, the weight should have been 142 grains.

But as it is, it cannot be attributed to him and he cannot be its issuer. In view of these facts, the issuer could only be Ghaṭotkachagupta. He issued the coin as he stepped on the throne and followed the weight standard of his father (or brother).

This coin thus suggests that Kumāragupta was succeeded by Ghaṭotkachagupta, being a natural successor. But he was not destined to rule for long. Skandagupta ousted him by his own valour and captured the throne.

EDITOR'S NOTE.

The theory advocated in this paper is highly improbable. There is no conclusive evidence to show that Ghaṭotkachagupta was a son of Kumāragupta I; it is merely a probable hypothesis. Even however assuming that it is a correct hypothesis, no cogent arguments have been adduced by Mr. Gupta to prove that this prince viceroy in Mālwā succeeded in capturing Pāṭaliputra and issuing coins.

The theory that the Chhatra type of coins were issued on the occasion of the coronation is yet to be proved; one wonders that if this was the convention, why Chandragupta I, Samudragupta, Kācha and Skandagupta did not issue coins of this type at all. We assume of course for the sake of argument that the coin under discussion is that of Ghaṭotkachagupta.

Nor are the Chhattra type coins the rarest; in the case of Chandragupta II, who first introduced this type, they are commoner than those of the Lion-slayer type. We need not therefore assume that Ghaṭotkachagupta began his ephemeral rule with the Chhattra type. One may further wonder whether he could have had time enough to issue two types during his short rule. The general make up and fabric of the Ghaṭotkacha coin in the Leningrad Museum appears to be much cruder than

1. *Ibid.*, p. 114, 116.

that of the Kramāditya coin in the Bayana hoard. The latter appears to be definitely earlier. Mr. Gupta's strongest argument in support of his theory is based upon its weight. He argues that on his earliest issues, which weigh 132 grains, Skandagupta took no *biruda*; it is only on later issues that he takes the *biruda Kramāditya*, and they weigh 144 grains. Kings used to assume their *birudas* usually at the time of their coronation; Skandagupta had a number of sensational victories to his credit even before his accession, and it looks improbable that he would have waited a few years for assuming the significant *biruda* Kramāditya. If this *biruda* does not appear on two of his types, the reason may be that the obverse legends on them, which have not yet been completely read, contained some significant expressions. On the Lyrist type of Samudragupta, for instance, there is no *biruda* on the reverse, the legend being simply *Rājā Samudragupta*. The legend on the obverse however gives the full imperial title, *Mahārājādhirāja*. The Swordsman, the Tiger-slayer and the Apratigha types of Kumārgupta bear no *birudas* on the reverse; but there is hardly any evidence to suppose that they were issued early in his reign, when he had not yet assumed any *biruda*. There is therefore no cogent reason to hold that Skandagupta could not have issued the Chhatra type coin in the Bayana hoard, because it bears the biruda *Kramāditya*. Skandagupta could as well have issued a third type in the lower weight standard and put his *biruda* Kramāditya on it. As matters stand today, it appear more probable that the Chhatra type coin of Kramāditya of the Bayana hoard is an issue of Skandagupta than of Ghaṭotkachagupta.

There is some evidence to indicate that Skandagupta and Purugupta may perhaps have contested for the throne. We have as yet no *prima facie* case to argue that Ghaṭotkachagupta also participated in this feud.

NUMISMATIC DATA IN THE KHAROSHṬHĪ DOCUMENTS FROM CHINESE TURKESTAN

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During his archæological expeditions in Central Asia, Sir A. Stein was able to unearth a mass of archæological wealth at ruined sites of Niya, Enders and Loulan in the shape of Kharoshṭhī documents on wooden tablets, leather and silk fragments and a few paper manuscripts. These documents[1] pertaining to the everyday life of the people in distant regions of Chinese Turkestan are a storehouse of information regarding social, religious, political and economic life of the area from the 2nd to the 4th century A.D.

Most of these documents deal with transactions concerning sale and purchase of lands, collection of taxes, exchange of gifts advance of loans, etc. A study of the contents of the documents reveals the fact that people used to pay their taxes in kind. Different kinds of grains, ghee, wine, textile goods and even pomegranates were some of the main objects paid as taxes. Animals like cows and camels were media of exchange. In fact the term *vita*, (Skt. *vitta*) is affixed to these animals, showing that they were the main form of wealth.

Under these circumstances very little use of coined money was necessary. We do however get some coin terms, but their use was not very frequent. The legendary accounts about Khotan having an Indian population as early as the times of Aśoka are well attested to by the discovery of the above documents in *Kharoshṭhī* script and *Prākrit* language, very similar to those of the Taxila region in the early centuries after the death of Christ. Those Indians, who happened to settle in Khotan region, inherited the cultural and material traditions of their motherland to a great extent. From India they even carried with them Greek words and terminologies.

In some of our documents, we notice actual mention of

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1. *Abbreviations used* :—
   - I. Doct. No.=Rapson, *Kharoshīhī Inscriptions discovered by Sir A. Stein in Ch. Turkestan*, Oxford. Vols. I, II, III. (Text only).
   - II. Trans.=Burrow. T., *A Translatian of Kharoshṭhī Documents from Chtnese Turkestan*, (1940) London.
   - III. Language=Burrow. T., *The Language of the Kharoshṭhī Documents from Chinese Turkestan* (1937), Cambridge.
   - IV. BSOS=Bulletin of the School of Oriental & African Studies, University of London.

'*satera*' or '*sadera*' (='stater') and *trakhma* or *drakhma* (=*Drachm*) ; cf :—

(a) Doc. No. 43, कम्पो 1 सुवर्न सदेर 2 लध ।
(b) ,, No. 324, सुवर्न सतेर 2 त्रख्म 2 ।
(c) ,, No. 702, सदेर 4 द्रख्म 2 ।
(d) ,, No. 419, सुवर्न सदेर 1 ।

The identification of the above terms *sadera* and *trakhma* with Greek stater and drachm respectively has very well been discussed by Messrs. F. W. Thomas (Greek Stater in Central Asia, *JRAS*, 1926, p. 507 ; Drakhma and Stater in Khotan. *JRAS*, 1924, p 671-2), Sten Know (Stater and Drachm in Kharoshṭhi Inscriptions, *Acta Orientalia*, Vol. VI,, p. 255-6), and H. W. Bailey (Indo-Iranica, *BSOS*, pt. I, (1949) p. 128-9). According to these Indologists, Greeks must have been responsible for the introduction of the terms *sadera* and *drakhma*. It was from Gandhāra country that the words reached Chinese Turkestan[1]. The frequent use of the word सुवर्न (*suvarna* = Skt. *svarṇa*) as a prefix of *sader*, may indicate that staters were not always in gold in Chinese Turkestan, as they were in Bactria and Greece. In an Uigur Turki document[2] purchased by the German expedition of 1902-3 and published by Prof. Gründwedel, we actually get a mention of "*6 satir of silver*".[3] These were 'silver staters' different from 'gold staters' (सुवर्न सदेर) of the documents. What their weight and value was is not known at present.

In the document No. 43, we also notice reference to *kampo* (कम्पो), cf. कनक शकस्यमि कम्पो 1 सुवर्नसदेर 2 लध (one *kampo* and two gold staters were found in a golden *śakasya*). The context shows that *śakasya* was some small pot made of gold (= कनक) and that कम्पो and सदेर were coins found in it. The exact meaning of कम्पो remains obscure. It may be the name of some coin.

A camel was purchased for 8,000 *māshas*, cf :—सो उटो विक्रिनमि मुलयंन मष सहस्र अष्टि (4.4.1000.). *Māshas*[4] are mentioned in large numbers as 8,000, 2,800 and 2,500 (doc. 149. माष सहस्र 2000 शत 500). Also we notice that a Buddhist monk (श्रमंन)

1. Konow. S, *Acta Orientalia*, Vol. VI, p. 256.
2. Referred to in *JRAS*, 1926, p. 507 by F.W. Thomas.
3. *Kharoshṭhī* documents are silent as to the relation of the prices of silver and gold. From the study of Tibetan documents from Chinese Turkestan, A. H. Francke (in his article in Stein's *Serindia*, p. 1465) goes to say :—"Silver was probably counted by '*dbyam*' or bars, whilst for gold and jewels the word *Zho* (=1/10 once) is used. In one document we find the equation $\frac{1}{2}$ *Zho* of gold =3 *Zho* of silver (i. e. 1:6).
4. According to Manu a silver *Māsha* weighs two '*rattis*' and a silver *Kārshāpaṇa* was equal to 16 *Māshas*. Thus 8000 *Māshas* could be equivalent in value to 500 silver *Kārshāpaṇa* coins, which were current in the *Kushāṇa* period n north India. They would be about 160 tolas of silver.

is giving out 2,800 *māshas* to somebody [Doc. No. 500, श्रमंन मोछ प्रियस परिदे माष गिड सहस्र 2,000,8(00)].

Māsha of Kharoshṭhī documents appears to be the same as *māsha* and *māsa* of Indian literature. It is a unique feature that monks in Central Asia used to be so wealthy as to indulge in very big money transactions. Even a glimpse of the documents will bring to our notice the luxurious life led by these monks. They were selling and purchasing not only lands but even slaves and girls. They used to wear and use all sorts of fine silken clothes too. Under these circumstances we can very well appreciate and tolerate a monk giving 2,800 *māshas* to somebody, perhaps as a loan.

In Doc. No. 702, धने (*dhane*) seems to be another coin denomination. Here we find that certain goods are sent on the birth of a son. The names of objects thus sent, along with their prices, are given in every case i. e. मरिच धने 3, शिंगवेर द्रख्म 1, पिपलि द्रख्म 2, त्वच धने 1, सुष्मेल धने 1, शकर सदेर 4. Mr. T. Burrow (*BSOS*, VIII, p. 783) thinks that this word is undoubtedly Iranian and quotes Mr. Steingass[1] according to whom N. Pers. *dang* = $\frac{1}{4}$th of a *dram*. Thus connecting the two terms we can provisionally say that *dhane* = N. Pers. *dang* = $\frac{1}{4}$ *drachm*. Mr. Burrow is against any attempt to connect *dhane* with skt. *dhānya* (*Language*, p. 99). It is however possible that *Dhane* may have some connection with *dhānaka* of *Brihaspati*.[2]

In the documents under review, मुलि (*muli*) has mostly been used in the sense of "price in general"[3] = Skt. *mūlya* (मूल्य). But in some cases we notice *muli* used as a unit of value too.[4]

In Doc. no. 431, the price of a carpet, 13 cubits long, is one golden *sadera*. In Doc. no. 579, the price of a carpet 13 cubits long, is twelve *muli*. Comparing the two documents we can say that one gold *sadera* is equal to twelve *mulis*. Hence one *muli* becomes equal to 1/12th of a gold stater.[5] Thus *dhane* and *muli* seem to be smaller denominations of *drachm* and *stater* respectively. *Māsha* was of course purely an Indian coin. *Kārshāpaṇas* are quite conspicuous by their absence.

Sir A. Stein also discovered a Kharoshṭhī inscription on a wall painting in an ancient shrine of Chinese Turkestan. Mr.

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1. Quoted in *BSOS*, VIII, p. 783.
2. 4 कार्षापण = 1 धानक, 12 धानक = 1 सुवर्ण or दीनार quoted by Bhandarker, D. R., *Lectures on A. I. Numismatics*, p. 189.
3. *Language*, p. 111-2.
4. Doc. no. 437 दुचपरिश मुलियामि. = worth 42 *muli* ; 100 *muli* (doc 345).
5. Compare. *Language*, p. 112.

Boyer has tentatively suggested the following reading and translation :—

Text —तितस एषा घल्लि हस्तक्रिच (भंम) क 3.100.

Translation—"This fresco is (the work) of *Tita* (=Titus), who has received 300 *Bhamakas* (for it)."

A. Stein puts forth Skt. term *bharman* as equivalent of *bhamaka* of Boyer. Two letters भ and म are not clear in the photographs. In the words of A. Stein "still the word in question, even if it should be read and derived differently, must designate some monetary value."[1] *Bharma*, a Skt. word, means both "a coin" as well as "gold".[2] Also it will not be a mere conjecture if one tries to read some *ka*-ending term as *nāṇaka* in place of (भंम) क. *Nāṇaka* coins were quite famous and well known to the ancient Hindu world. The Elamite goddess *Nana* possibly gave her name to the famous *nāṇaka* coins.[3]

Such in brief, are the numismatic data as derived from the Kharoshṭhī documents of Central Asia. Central Asia was a meeting ground of many cultures. Here we find at least three prominent civilisations leaving their imprints, the Greek, the Persian and the Indian. We totally fail to find any distinctly native (Central Asian) terminology for currency of the period from the second century to the fourth century A.D. The use of a foreign currency in Chinese Turkestan appears to be a noteworthy feature, which should not escape the eyes of a student of the history of civilization.

1. Stein, A., *Serindia* (1921), Oxford, I, p. 530.
2. Monier Williams, *Skt-English Dictionary*, (1899), Oxford, p. 748.
3. Raychaudhuri, H.C., *Political History of Ancient India*. 5th edn ; p. 475, f, note 4.

NUMISMATIC DATA IN EARLY JAINA LITERATURE.

BY U. P. SHAH, M. A.

Dr. J. C. Jain[1] has collected some numismatic evidence from Jaina literature. Below is reconsidered the same along with some more evidence, specially noteworthy being the one from Hemachandra, who, on the evidence of Gauḍa quoted by him, says that one Kārshāpaṇa is equal to sixteen Paṇas. Possibly this Paṇa may be the same as Māsha. Cf.—

"कर्षापणः, कर्षापणम्—मानविशेषः पणषोडशकम्, शाकटायनस्य। प्रज्ञाधेणि कार्षापणः कार्षापणमित्यपि, यद् गौड :—

"कार्षापणोऽस्त्री कार्षिके पणेषु षोडस्वपि।"

Hemachandra, स्वोपज्ञवृत्ति on Liṅgānuśāsana, Chap. V, v. 15, p. 66 (ed. by Śrī Lāvaṇyavijaya-sūri, In Press).

Now Paṇa is also mentioned in the *Vasudevahiṇḍī* of Saṅghadāsa (c. 500 A.D.), where it is said that a merchant in a caravan passing through a desert had one of his carts laden with a bag-full of Paṇas, carried for facilities of exchange (*vyavahāra*). But the bag gave way and the Paṇas were scattered on the ground. The merchant tried to collect them when the guides warned him with a proverb which asked one not to risk millions for the sake of a Kākiṇī.

Naturally, Kākiṇī (Pkt, Kāgini) stands here for a coin of the smallest denomination; possibly it means a cowrie. In the Dakshiṇāpatha, Kākiṇī was a means of exchange, either a coin or a cowrie; we shall refer to it later on, But the reference shows that the Paṇa was a coin of the smallest denomination. Dr. Jain has noted from the unpublished *Vyavahāra-bhāshya* (3. 267-8) a reference to Pannika, which may be the same as the Paṇa. The *Vyavahāra-bhāshya* probably dates from *c*. 600 A.D. As noted by him, Haribhadra Sūri refers to Pāyaṅka in his *ṭīkā* on the *Āvaśyaka sūtra* (p, 432).

Now this Pāyaṅka is not a Paṇa. Dr. Agrawala has collected[2] numismatic data from Pāṇini, Kātyāyana and Patañjali. He has shown that the *Ashṭādhyāyī* reveals a full-fledged gamut of Kārshāpaṇa series. The coin denominations include Nishka, Śatamāna, Suvarṇa, Śāṇa, Kārshāpaṇa,

1. *Life In Ancient India as depicted in the Jaina Canons*, (Bombay 1947), page. 120.
2. Ancient Indian coins known to Pāṇini, Dr. V. S. Agrawala, *JUPHS*. XI, pp. 74 ff.; A further note on coins from Pāṇini, Dr. Agrawala, *JUPHS*. XII, pt. I, pp, 30-34.

Prati (name of Kārshāpaṇa), half-Kārshāpaṇa, called Bhāga, quarter-Kārshāpaṇa, known as Pāda, one-eighth Kārshāpaṇa called Aṣṭabhāga, Māsha, Viṁśatika (silver Kārshāpaṇa of 20 Māshas, i.e. 40 Rattis in weight) and Triṁśatika (a Kārshāpaṇa of 30 Māshas in weight). As shown by him, Kākiṇī and Arddha-Kākiṇī are referred to by Kātyāyana and not by Pāṇini. Punch symbols were called *āhata-rūpa,* and a Punch-marked coin was also known as Rupya.

As noted by him, Viṁśatika and Triṁśatika varieties have been found in Eastern India. But the ratio of Hemachandra, viz., 16 Paṇas = one Kārshāpaṇa seems to suggest another type once current in the Western or Central India known to Hemacandra from earlier or contemporary evidence.

The Pāyaṅka of Haribhadra Sūri, noted above, would seem to stand for the Pāda noted by Dr. Agrawala from Pāṇini.

A false (*kūḍa*) Kāhāvaṇa is referred to in the *Uttarādhyayana-sūtra,* 20. 42. Māsha, Adhamāsha and Ruvaga are mentioned in the *Sūtrakṛitāṅga-sūtra,* 2. 2. and in the *Uttarādhyayana-sūtra,* 8. 17. False Ruvagas were also known to Jinadāsa Mahattara, the author of the *Āvaśyaka-Chūrṇi* (p. 550) in *c.* 676 A. D. The *Uttra. Sū.* 8. p. 124, further refers to a Suvaṇṇamāsaya. Thus just as Kāhāpaṇas of gold, silver and copper were in use, smaller denominations, called māsha were also available in gold, silver and copper. Ruvaga was probably a silver punch-marked coin.

In the *Upāsakadaśāṅga-sūtra,* I. p. 6, we meet with an expression Hiraṇyasuvarṇa, while in the *Āvaśyaka-Chūrṇi,* p. 39, and in the *Āvaśyaka-Tīkā* (of Haribhadra),[1] p. 64, Suvaṇṇa is mentioned separately. I am inclined to think that Hiraṇya and Suvarṇa refer to the gold coins current in western and eastern India in the Kushāṇa and Gupta periods. Either or both the expressions may also refer to the gold coinage of the Guptas. The Gadhwā Inscr. no. 64 (Fleet, *Corpus*. p. 265), probably of the time of Kumāragupta, refers to Dīnāra in line 8, but in line 16, an endowment is made in terms of Suvarṇas. Official transactions noted in the Dāmodarpur Plates (*Ep. Ind.*, XV. 113-145) are in terms of Dīnāras.

Kāhāpaṇas are also referred to by the *Vasudevahiṇḍī* where a wood-cutter is seen getting with great labour, one Kāhāpaṇa, at the end of the day. Here the Kārshāpaṇa may be a copper Kārshāpaṇa as also in another story from the same text, where a Tittiri bird was sold for a Kārshāpaṇa.

The *Bṛihat-Kalpa-Bhāshya* is an important work throwing

1. Jinavijayaji and Jacobi assigned him to *c.* 700-770 A.D. I have shown that he should be assigned to *c* 635-720 A.D. Vide जैन सत्यप्रकाश (Gujarati, Ahmedabad) nos. for January and Feb-March; 1952.

interesting side-lights on Ancient Indian Culture, and seems to have been composed in *c*. 600 A.D., or earlier. In v. 1969, we find .—

कवड्डगमादी तंबे, रुप्पे पीते तहेव केवडिए ।

Commenting upon this, Kshemakīrtti (*c*. 1332 v.s.) writes:—

कपर्दकादयो मार्गयित्वा तस्य दीयन्ते । ताम्रमयं वा नाणकं यद् व्यवह्रियते, यथा—दक्षिणापथे काकिणी । रूपमयं वा नाणकं भवति, यथा भिल्लमाले द्रम्मः । पीतं नाम-सुवर्णं तन्मयं वा नाणकं भवति, यथा—पूर्वदेशे दीनारः । 'केवडिका' नाम यथा तत्रैव पूर्वदेशे केतराभिधानो नाणकविशेषः ।

—बृहत्कल्पभाष्य, ed. by Puṇyavijayaji (Bhavnagar), Vol. II. p. 573.

It may be noted that the commentator had an earlier *Chūrṇi* on this text before him and that the evidence supplied by him is based upon earlier traditions of *c*. 7th cent. A.D. He shows that Kākiṇī was the name of a copper currency in the Dakshiṇāpatha, Dramma was a silver coin current in Bhillamāla (west of Abu, in Mārwar) ; the golden Dīnāra was in use in the Eastern parts of India. Kevadika, also known as Ketara, was also a current coin of Eastern India.

The *Bṛihat-Kalpa-Bhāshya* further gives exchange values of different coins in the following gathas :—

दो साभरगा दीविच्चगा तु सो उत्तरापथे एक्को ।
दो उत्तरापहा पुण, पाडलिपुत्तो हवति एक्को ॥ ३८९१ ॥
दो दक्खिणावहा तू, कंचीए णेलओ स दुगुणो य ।
एगो कुसुमणगरगो, तेण पमाणं इमं होति ॥ ३८९२ ॥

Thus, 2 Sābharakas of Dvīpa—1 Silver coin of Uttarāpatha,
2 Uttarāpatha coins—1 Silver coin of Pāṭalīputra,
2 Silver coins of Dakshiṇāpatha—I *Nelaka* of Kāñchīpurī in Drāviḍa country,
2 *Nelakas* of Kāñchīpurī—1 Silver of Kusumapura (i.e. Pāṭaliputra).

This will be clear from the following explanation of the commentator :—

'द्वीपं नाम सुराष्ट्राया दक्षिणस्यां दिशि समुद्रमवगाह्य यद्वर्तते तदीयौ द्वौ 'साभरकौ' रूपकौ स उत्तरापथे एको रूपको भवति । द्वौ च उत्तरापथरूपकौ पाटलिपुत्रक एको रूपको भवति ॥ ३८९१ ॥ दक्षिणापथौ रूपकौ काञ्चीपुर्यां द्रविड़विषयप्रतिबद्धया एकः नेलकः रूपको भवति । 'सः' काञ्चीपुरीरूपको द्विगुणितः सन् कुसुमपुरनगरसत्को एको रूपको भवति । कुसुमपुरं पाटलिपुत्रमभिधीयते । *Op. cit*, Vol. IV. p. 1069.

The location of Dīva or Dvīpa to the south of Surāṣṭrā in the sea may be noted. These two verses of the *Bṛihat-Kalpa*

Bhāshya are incorporated in the *Pravacanasāroddhāra*. Siddhasena (*c.* 1190 A.D.), commenting on them, adds that the distance between Dvīpa and the coast of Surāṣṭrā was one Yojana.[1] In the *Āvaśyaka-Chūrṇi*, Dvīpa and Jona are mentioned as countries known for the cemetary (*mataga-lena*).[2]

The Sābharakas, current in Dvīpa, were, according to Dr. Motichandra, pre-Islamic coins known as Sabean coins.[2] It is expressly mentioned in our texts that they were silver coins.

More interesting evidence, however, comes from the *Aṅgavijjā* an unpublished Jaina text of the sixth century A.D. I am thankful to Muni Śri Puṇyavijayaji for this reference. The text is corrupt. It classifies objects and words as masculine (पुण्णाम), feminine थिणाम) and neuter. In the first division it says : सुवण्णमासको व त्ति तहा रययमासओ ।

दीणारमासको व त्ति तधोणाणं च मासको ॥ १८६ ॥

काहापणो खत्तपको पुराणो त्ति व जो वदे ।

सतेरको त्ति तं सव्वं पुण्णामसममादिसे ॥ १८६ ॥

—*Aṅgavijja*, 9th Adhyāya, Puṇṇāma-paṭala.

Thus there was a Māsaka called Suvaṇṇamāsaka, which probably means the smallest gold coin of the series of which the Suvaṇṇa was the highest one. In this case I am inclined to take Suvarṇa as the gold coinage of the Imperial Guptas. The Rajata-māsaka was the lowest coin of the current silver coinage. The Dīṇāra-māsaka was the smallest coin of the series of the Roman Denarius. The expression "तधो णाणं च मासको" seems to be simply referring to the general and most current smallest denominative of the copper coinage, simply called Māsaka. Then the text refers to Kāhāpaṇa or Kārshāpaṇa. For the first time we find here the term Khattapaka, which means Kshatrapaka ; this was obviously the coinage of the Western Kshatrapas. Next we find the term Purāṇa and Sateraka, the latter being often written as Sābharaka in some Mss., which my friend Dr. Sandesara thinks to be the correct reading.[3]

1. "द्वीपश्च यः सुराष्ट्रामण्डले दक्षिणस्यां दिशि योजनमात्रं समुद्रमवगाह्य तिष्ठति सोऽत्र गृह्यते" *Pravacanasāroddara*, with Commentary of Siddhasena. Vol. II., pp. 233 ff.

2. See Dr. Jain, *op. cit*, p. 281. He refers to the opinion of Dr. Motichadra on p. 120.

[3. Sateraka, derived from Greek term stater, seems to be the real word. *A. S. A.*]

TWO UNIQUE MUGHAL COINS.

By Mr. C.R. Singhal, Bombay.

[Pl. V. 18-19]

A

A SILVER NIṢĀR OF SHĀH SHUJĀ‘

This Niṣār was shown to me by my friend Mr. S. M. Shukla of Bombay, who acquired it at heavy price. I am publishing it for the information of the Mughal numismatists. The word Niṣār is very commonly employed in the Mughal chronicles for coins and precious stones waved round the head of the emperor or other great personage and thrown among the crowd to scramble for at coronations, weddings, birth-day anniversaries, royal entries and progresses through the great cities or other festive celebrations.

On the report of Shāh Jahān's serious illness, Shāh Shujā‘, who was at the time governor of the province of Bengal, was the first of the emperor's sons to rise. We know that he gave out that Shāh Jahān was already dead; so it is only reasonable to suppose that he had himself proclaimed king, got his name inserted in the Friday prayers, and coins struck at the principal place or places of his governorship, before starting on his perilous expedition to Dehlī.

About five rupees of this unsuccessful rebel son of Shāh Jahān and claimant to the Imperial throne are known so far and these specimens are all that are known of Shāh Shujā's exceedingly rare currency. They are all described by Mr. R.B. Whitehead (vide *Numismatic Supplement* No. XX, p. 533). The mint-name Akbarnagar can be clearly read on some of these specimens. Akbarnagar, the modern Rājmahal, was the provincial capital of Bengal and Shāh Shujā‘ was appointed the Governor of this province by his father Shāh Jahān. He held his principal court at Rājmahal (Akbarnagar), which was the recognized capital of that part of Bengal and a well-known mint-town of the Mughal emperors of India. A few silver Niṣārs issued by his father Shāh Jahān from the same mint are also known. Like all his rupees, this Niṣār is also dated 1068 A. H. and it weighs 88 grs. or half a tola only. The size is ·7 inches.

The legend is read as under :—

Obverse. نثار شاه شجاع بادشاه

Reverse. ضرب اکبر نگر ۱۰۶۸ Pl. V. 19.

B

A COPPER COIN OF KHAMBĀYAT MINT.

As a matter of fact the Mughal currency was issued mainly in gold and silver and the copper coins which were struck in a limited number are much rarer than the gold or silver coins. Except Akbar the Great, whose Falūs are very commonly met with, the number of copper coins issued by his successors is still more smaller. The reason for this singular scarcity of copper is the general use of other substances for petty currency in India. Cowries formed the chief small change of Bengal and bitter almonds of Bombay. Linschoten remarked in 1584 that almonds were used for coins at Surat and that 36 almonds went to a pice.

The copper coin which is described in this short note belongs to emperor Muhammad Shāh and it was issued from the Khambāyat mint in the year 1137 A.H. If we examine the catalogues of Mughal coins in various museums, we will find that no coins in any metal were issued from this mint before the reign of Shāh Jahān. It was this emperor and his successors, who frequently made use of this mint by issuing coins in silver only but none of them struck even a single piece in copper. In the list of Mughal Mint Towns compiled by R. B. Whitehead, it is stated that a copper coin from this mint was issued by Shāh 'Ālam Bahadur and that this singular piece was supposed to be in the collection of Mr. H.N. Wright. But in the Catalogue of Mughal Coins in the Indian Museum compiled by him, he does not make any mention of it. Under the circumstances, it is very probable that this coin is a unique issue of Khambāyat mint. The legend on this coin, which weighs 213 grains, is read as under.

Obverse. محمد شاه بادشاه غازی ١١٣٧

Reverse. جلوس ضرب کهنبایت

Pl. V. 18

A UNIQUE GOLD COIN OF THE NAWĀBS OF CUDDAPĀH.

By Mr. C. R. Singhal, Bombay.

[Pl. V. 20]

While working on the coins in the Bombay Branch of Royal Asiatic Society, I came across many coins of new types which I hope to publish at some later date. But at present I am bringing to the notice of numismatists the coin of a ruler whose currency were not known to us so far. This coin was issued in the name of ‘Alamgīr II and is dated 1170 H. = 1756 A.D. The mint name which is inscribed on the reverse side can clearly be read as Sidhaut or Siddhavatta. When I first looked at this coin, I was not inclined to include it in the coins of the Mughal series. Its small weight, size and fabric revealed to me that the home of this coin must be found somewhere in Southern India. The name of this new mint Sidhaut or Siddhavatta was also not known to me and with the help of the Imperial Gazetteer I was able to locate it in the Cuddapāh district of the Madras Presidency. Following information about this place is gleaned from the Gazetteer of the Cuddapah District :—

"Siddhavattam or Sidhout is the headquarters of the taluka. A metalled road connects Sidhout with the Vontimitta railway station at a distance of 8 miles. The historical interest of Sidhout centres in its fort. Within it are to be seen traces of Hindu temples of which, prior to the Musalman ascendancy, there were three, named the Siddheswaraswāmi, Siddhavateswaraswāmi and Ranganathaswāmi temples. Early in the 17th century Anantarāmarāju, a powerful prince of the Matli family visited this place and ordered that the temples should be surrounded with a strong compound wall. On the southeast side of the wall an inscription records its construction by that Matli chief in the year 1604 A.D. This wall became the nucleus of the fort which was built by ‘Abdul ‘Ālam Khān, the Nawāb of Cuddapāh, about 1755 A.D. A moat was dug and water let into it from the Penner river. Upon the southern wall of the fort, the Nawāb constructed a mosque, with a residence for himself closeby. After the Musalmān occupation, the Hindu temples within the fort were dismantled and the idols removed and installed in fresh temples. It was in the Sidhout fort that the Nawāb ‘Ālam Khān was finally

captured by Haidar 'Ali in 1779 A.D. and sent as prisoner to Seringapatam."

It is quite likely that after completing the fort above referred to this coin was struck by the Nawāb 'Abdul 'Ālam Khān in the name of 'Ālamgīr II, the Mughal Emperor of Dehlī.

The legend on this coin, which is 43 grains in weight, is as under :—

Obverse.		Rev.	
	عالمگیر ے		تة
	بادشاه ے		هو
	۱۱۷۰		سد
			(ض)رب

Pl. V 20

SOME GHAZNAVID COINS FROM LONI (U.P.).

By Olaf Prufer, Jamia Millia Islamia, New Delhi.

[Pl. VI. 21–24]

In the course of a recent inspection of the ancient mound at Loni, a site situated about eight miles north of Delhi, on the way to Bhagpat, I purchased from a local villager a large number of the Bull-and-Horseman type of billon coins said to have been discovered in a clay pot just below the remains of a massive early Islamic stone structure crowning the top of the mound.

Upon close examination I found that some of these coins bear on the reverse Kufiq legends not to be met with on the coins of the early Indo-Islamic rulers, who also issued bilingual coins of the Bull-and-Horseman type. These specimens turned out to be the issues of the rulers of Ghazni.

It is worth mentioning that the pieces bearing no Islamic legends and those that bear them are of a homogenous type, suggesting that they came both out of the same mint. This raises the question, whether the Sultans of Ghazni also issued a purely Indian currency for their south-eastern dominions, along side with semi-Islamic and Islamic ones.

In this paper, however, we shall deal with the bilingual types only. Of these, two types represented by one and seven specimens respectively, are known. I was unable to trace types 3 and 4 in published catalogues.

TYPE 1

Ruler :	Ferokhzad,	(A.H. 444–451 ;	A.D. 1052–1059).
Weight :	50 grains ;	diameter : 6″ ;	thickness : ·06″.
Reverse :	عدل جمال الدولة ابو شجاع فروخزاد		*Adl* *Jamal-ud-Daulah* *Abu Shujah* *Farokhzad*
Obverse :	श्री सामन्तदेव		*Srī Sāmanta Deva.*

Seated bull to left. Traces of a dot (?) on jhul.

Pl. VI, 21

TYPE 2

Coin no. 1. Ruler : Ibrahim, (A.H. 451–492 : A.D. 1059–1099).
Weight : 48 grains ; diameter : ·56″ ; thickness : ·06″.

Reverse : عدل — *Adl*
السلطان — *Al Sultan*
المعظم — *Al Muazzam*
ابو المظفر — *Abu al Muzaffar*
ابرهيم — *Ibrahim*

The marginal legend is too obliterated to be read.

Obverse : श्री सामन्तदेव — *Śrī Sāmanta Deva.*

Seated bull to left. **Pl. VI. 22**

Coin no. 2 Ruler : As on type 2, No. 1.
Weight : 47 grains ; diameter : ·58″ ; thickness : ·09″.
Reverse : As on type 2, No. 1. This coin has been badly clipped, hence the marginal legend is missing.
Obverse : As on type 2, No. 1. **Pl. VI. 23**

This coin has been deliberately damaged. A part of its right side has been cut away and an attempt to do the same has been made on the left side.

TYPE 3

Ruler : Ibrahim (?), (A.H. 451-492 ; A.D. 1059-1099).
Weight : 42 grains ; diameter : ·45″ ; thickness : ·1″.
Reverse : As on type 2, Nos 1 and 2 ; partly obliterated. Legend within dotted circle.
Obverse : As on type 2, Nos 1 and 2 ; much obliterated. A dot on *jhul*. Legend within dotted circle.
Pl. VI. 24

Type 3 is altogether a much cruder issue than type 2. Apart from that, it should be noted that on both, reverse and obverse of type 3, the legends are within dotted circles. This is not the case with type 2. Type 3 also has no marginal legend.

TYPE 4

Ruler : Bahram Shah, (A. H. 512-547; A. D. 1188-1152).
Weight : 51 grains ; diameter : ·6″ ; thickness : ·06″.
Reverse : [عدل] — *(Adl)*
السلطان — *A Sultan*
الاعظم — *Al Azam*
...ظ...لا... — *?...............*
...بهرام؟ — *Bahram*

Obverse : श्री सामन्तदेव — *Srī Sāmanta Deva.*

Seated bull to left with dot on *jhul.*

This coin is badly defaced and also badly minted. Parts of its legend are off the flan, but fortunately the ruler's name is recognisable.

It should be noted that the silver content of all these coins is much higher than that of their later Indo-Islamic bilingual types.

As regards the marginal inscription of type 2, I should like to direct the reader's attention to Edward Thomas' book : *Coins of the Kings of Ghazni*, London 1848. This book gives drawings of types 1 and 2 of this paper.

The importance of this find, I feel, lies essentially in the fact that coins of the Ghazni Sultans can be found profusely as far away from the Ghaznavid empire's boundary as Delhi. Also, I think it is important to note that such coins occur together with similar purely Indian ones, which on typological grounds should be assigned to roughly the same age and mint. Small details in the design of the bull and the Nagari lettering, identical on both varieties, point to that conclusion.

From the surface of the same mound was picked up one more Ghaznavid bilingual coin. This one, however, is made of copper. The Kufiq legend is badly defaced, but from the type of Nagari lettering and a peculiar sign on the bull's jhul, identical with the one depicted by Thomas in the aforementioned work, Pl. 3, 153, I feel that this coin may be an issue of Khusrau Malik (A.H. 555-583 (?)).

How this variety of Ghaznavis coins got to Loni remains to be investigated. I hope to be able to publish a further paper on this subject after a conclusive study of all available coins of the hoard and possible associated finds from the mound.

THE METROLOGY OF THE GOLD COINS OF THE GUPTA DYNASTY.

BY PARMESHWARI LAL GUPTA, M.A., BANARAS.

The weights of the gold coins of the Imperial Gupta kings vary from king to king. The coins of Chandragupta I, Kācha and Samudragupta have the average weight of 119 grains. Mr. Allan has given the weight standard of these coins to be about 121 grains. In the time of Chandragupta II, we find coins of three weights 121, 125 or 126 and 132 grains.[1] In the time of Kumāragupta I, we have the coins of 126 and 132 grains. The coins of Kumāragupta I of 132 grains were not known to Mr. Allan, but many coins approximately of this weight standard are known from the Bayana hoard.[2] In the time of Skandagupta, coins of two weight standards, one of 132 grains and the other of 142 grains were issued.[3] This gradual rise in the weight of the coins from king to king continued in every succeeding generation and reached upto 151 grains in the time of Vishṇugupta, the last known ruler of this dynasty.[4]

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1. *B. M. C.*, intro., p. cxxxi-cxxxii.

2. The Catalogue of the Coins of Bayana Hoard is still unpublished. The information is based on my personal knowledge of the hoard. Most of the coins of the Archer type are more than 126 grains and go upto 128 grains. Two coins of Archer type (class II) weigh more than 130 grains. The Lion-trampler and Horseman types have the coins of more than 126 grains and go upto 128 grains. Among the Rhinoceros type coins, one weighs 127. 1 and the other 128.1 grains. One Tiger-slayer type weighs 127. 9 grains. Perusal of Mr. Allan's *Catalogue* also shows that coins of more than 126 grains exist in British Museum. Coins Nos. 204, 206, 217 and 219 of the Horseman type and coins Nos. 232, 234 & 236 of the Lion-slayer type are the examples of this heavy weight. All the coins of Peacock type (Var *a*) are more than 126 grains in weight and go upto 128.4 grains. A coin of this type in the Bayana hoard weighs 8.882 grams i. e. more than 137 grains.

It is true that there are not many coins which reach the standard of 132 grains; but the very fact that most of the coins weigh between 126 and 128 grains, shows that there was another standard which was heavier than 126 grains. But without suggesting any new weight standard I have accepted the weight standard of 132 grains for these coins, for coins more than 130 grains are not unknown.

3. *B. M. C.*, intro., p. cxxxii.

4. My statement that Vishṇugupta was the last ruler of the dynasty might raise a confusion in the minds of some scholars ; so it seems necessary to add a few words here. There was a group of scholars who believed in the existence of two Kumāraguptas, II and III. Kumāragupta II, to them, was Kumāragupta of Sarnath inscription and Kumāragupta III was of Bhitari seal. I have substantiated this suggestion from the numismatic evidences (*Ante*, Vol. XII, p. 31 ; *I. H. Q.*, Vol. XXVI, p. 256-257) and I consider them as conclusive in this matter. Now Kumarāgupta III was the son of Narasimhagupta and his son was Vishṇugupta. And in the chronology, they can only be put as follows ; Kumāragupta II (154 G. E.), Budhagupta (157-175 G. E.), Vainyagupta (188 G. E.), Bhānugupta (191 G. E.) and then Narasimhagupta, Kumāragupta III and Vishṇugupta. Thus the place of Vishṇugupta is the last.

Why was it so ? It is a pertinent question which may be put to a numismatist. But there is hardly sufficient evidence for giving a satisfactory answer to it. In fact, the cause of this gradual rise was never thought of by the scholars seriously. Mr. Allan, in the introduction of his *Catalogue*, has devoted a few paragraphs to this subject. But he confined to the notice of the weight standards of the coins of different kings. He did not seriously consider the problem of the rise of weight of the coins of early kings. It was only the rise in the weight of the coins of Skandagupta that set him to think a little in the matter and to suggest that the standard was changed to the old Hindu *suvarṇa* standard of 146.4 grains.[1] Cunningham thought that the heavy weight of Skandagupta's coins was due to adulteration. This suggestion of his caught the imagination of scholars and they, without seriously considering over the matter, rushed to a hypothesis of a very high historical importance. They concluded that the depreciation in the purity of gold was possibly due to the financial drain caused by the Hūṇa war.[2]

None of these suggestions are based on any sound grounds. They show the ignorance of the elementary principles of economics. Had there been any strain on the treasury, the coins would have been debased without rising the weight of the coins. The increase in the weight of the coins and adding base metal to meet that weight would bring no depreciation in the metallic value of the coin. It would rather increase it, as the cost of the additional silver would be added to it. For example, if a coin weighing 100 grains and having 70% gold and 30% silver is raised by 10 grains, without reducing the weight of the gold, it would increase the weight of the coin and decrease the percentage of the gold, but at the same time would add to it the cost of 10 grains silver. This kind of debasement, instead of lightening the burden of the treasury or meeting the need of the exchequer, would add an additional burden. On the other hand if the percentage of the costly metal is reduced, keeping the same weight of coin by adding more base metal, the coin would cost less in metal and reduce the burden of the treasury. This we can well understand by the debased rupee currency of our own times that took place of the silver rupee during the World War II.

This has ever been missed and no attempt was made to ascertain the truth scientifically. Dr. B.P. Sinha of the Patna University deserves our congratulations for getting eight coins of Skandagupta from British Museum of both the standards analysed in order to prove the fallacy of the belief. The result

1. *B. M. C.*, Intro., p. cxxxi.
2. Majumdar & Alteker, *The Vakataka-Gupta Age*, p. 179.

of the analysis shows that the heavier coins were not debased at all in comparison to ligher ones.[1]

This fact turns the theory other way. It shows that the latter part of the reign of Skandagupta was more prosperous than the earlier one. It reveals that the gold had gone cheap by 10% and to maintain the ratio between gold and silver coin, it became necessary to increase the weight of the gold coin. As a matter of fact there was already no basis to postulate any stress of continued war in the reign of Skandagupta. His inscriptions spread in the various parts of his dominion always speak of the rising prosperity.

No such chemical analysis of the coins of the early kiugs has been made as yet; so no positive suggestion could be made about them. But the general appearance of the coins shows no adulteration to suggest any debasement with the rise of the weight. If the coins have their weight increased without any debasement, as is the case with the coins of Skandagupta, as shown above, we may safely take the increase in weight as indicative of the rising prosperity of the Gupta empire from king to king during the reigns of the early kings.

But this was not the case after Skandagupta. The rise in the weight of the coins of his successors was accompanied with a tendency to reduce the percentage of gold, as is evident from the results of the chemical analysis published by Dr. Sinha.[2] This will be clear from the following table:

	KING	Weight in grains	Percentage of gold	Approximate quantity of gold in grains.
1.	Kāmaragupta II[3]	139–143.	79%	110
2.	Budhagupta[4]	141.4–144.5	77% to 72%	106
3.	Vainyagupta[5]	144.5–148	72%	104
4.	Narasiṁhagupta (Class I)[6]	144.5–148	70%	101
5.	do (Class II)[7]	143.5–147	54%	78
6.	Kumāragupta III[8]	147–148.1	54%	78
7.	Vishṇugupta[9]	149–151	43%	64

This shows that the value of gold was going high and high;

1. Bearing of Numismatics on the history of the Later Imperial Guptas, *J. B. R. S.*, Vol. XXXIV, part III & IV, p. 24.

2. *Ibid*, p. 22-26.

3. *B. M. C.*, p. 140.

4. *Ibid.*, p. 134. These coins were attributed to Puragupta, but now they have proved to be the coins of Budhagupta (*J. N. S. I.*, Vol. XII, p. 114).

5. *Ibid*, p. 144. These coins are described as the coins of Chandragupta III Dvādaśāditya. But now they are accepted beyond doubt the coins of Vaiṅyagupta.

6. *Ibid.*, p. 137.

7. *Ibid.*, p. 138-39.

8. *Ibid*, p. 141. These coins are attributed to Kumāragupta II by Mr. Allan, but recently I have shown that they belong to this king (*J. N. S. I.*, Vol. XII, p. 31-33.)

9. *Ibid.*, p. 145.

and to maintain the old metallic value of the gold coins in ratio to the silver coins, the necessity was felt to reduce the gold contents of the coins. And it was reduced in such a quantity that it needed some more silver or the base metal, than the reduced quantity, to meet the deficiency of the value of the coin affected by the reduction. But this debasement and the rise of the weight upto the early part of Narasimhagupta's reign was slow. Only a few grains of gold were taken out. Only 9 grains were reduced between the reign of Kumāragupta II and the early part of the reign of Narasiṁhagupta. This suggests that the scarcity of gold was being felt by the people, but it was not so as to affect the prosperity of the country. It might have been more or less the same as was in the time of Skandagupta.

But in the later part of Narasiṁhagupta's reign, we find a heavy reduction of 23 grains of gold. Its percentage was reduced from 70 to 54. This suggests that the exchequer suffered from a sudden heavy drain, due to some unforeseen reasons. We know of Hūṇa menace in this period, and most likely that might have been the cause of the economic deterioration.

This condition persisted in the time of Kumāragupta III, but in the time of his successor Vishṇugupta, we see another heavy fall in the gold percentage with a nominal rise in the weight. This reflects the decaying condition of the Gupta empire verging towards its collapse. Henceforward we find that the gold currency of this country went on decaying to the extent that in the late medieval period gold coins appeared almost like silver. This heavy debasement of gold coins may be due to the stoppage of the gold import.

Besides reflecting the economic condition, the metrology of the coins of the later imperial Guptas confirms the chronology of the kings as suggested by me on other considerations.[1] In this connection I would like to add a few words about the attribution of the *Prakāśāditya* coins. I have tried to identify Bhānugupta as the issuer of this coin type[2]. His only known date is 191 G.E.; and he may be placed after Vainyagupta, the last known date of the latter being 188 G.E. The average weight of the Prakāśāditya coins in the British Museum is 145·4 grains. This weight places the coin just where the date of Bhānugupta's inscription puts him in the chronology, i.e. between Vainyagupta and Narasiṁhagupta. This confirms the attribution of the coins to Bhānugupta. I regret that I have not before me the results of the chemical analysis of these coins. Had it been before me, I am sure it would also have suggested the same thing.

1. The Later Imperial Guptas, *I. H. Q.*, Vol. XXVI, p. 253-262.
2. *J. N. S. I.*, Vol. XII p. 34-35.

COPPER COINS OF THE KARKOṬA KINGS OF KĀŚMĪRA

BY DR. SUNIL CHANDRA RAY, M.A., D.PHIL. NALANDA

Did the Karkoṭa kings of Kāśmīra issue copper coins? According to Cunningham they did not. The great archæologist is of the opinion that the Karkoṭa kings of Kāśmīra struck only gold (i.e. electrum) coins. Copper coins, with the names of Karkoṭa rulers written over them, are found in abundance at different parts of Kāśmīra. But Cunningham considers them to be simple forgeries that have been originally guilt for being passed as genuine gold coins[1].

Aurel Stein thinks that the Karkoṭa kings of Kāśmīra struck copper coins, but those did uot bear the names of their strikers, as the electrum coins did. According to him, the copper coins of the Karkoṭas were the same as the usual Toramāṇa coins which are found in plenty in every part of Kāśmīra. Of course, the Toramāṇa coins were circulated in Kāśmīra long before the advent of the Karkoṭas by a prince called Toramāṇa, but Stein thinks that their striking was continued for centuries by succeeding rulers[2]. Archæological excavation as well as literary evidences prove that the Toramāṇa coins were in circulation in Kāśmīra upto the 15th century A.D.[3]. This, according to Stein, is a conclusive evidence that the Toramāṇas were not struck by a single individual, but that they were struck by a number of rulers. In the *Rājataraṅgiṇī* Kalhaṇa refers to the striking of copper coins by some Karkoṭa prince. Stein cannot find any genuine copper coin which bears the name of any Karkoṭa monarch. He attributes some part of the abundant issue of Toramāṇa coins to the Karkoṭa kings[4].

But there is evidence to show that the Karkoṭa kings struck copper coins in their *own name*. Vincent Smith, in his *Catalogue of Coins in the Indian Museum* refers to the copper coins bearing the name of the Karkoṭa kings Śrī Pratāpa

1. Cunningham, *Coins of Mediæval India*, p. 29.
2. Stein. *Rājataraṅginī* (Eng. Tr.), Vol. II, pp. 320-21.
3. Śrīvara testifies to the circulation of the Toramāṇa coins in the 15th century A. D., *Śrīvara's Chronicle* (Cal. ed.), Book III, verse 213. A hoard of 87 copper coins contained in an earthen vessel came to light 56 feet east of the peristyle of the Avantisvāmī temple and 6 feet below the surface. 85 of them belonged to the coinages of Zainulabidin, Haidar Shah, Hasan Shah, Muhammad Shah and the remaining two were of Toramāṇa. This shows that the coins of Toramāṇa were still in use in the end of the 15th century, *Annual Rep., Archaeological Sunrey of India*, 1913-14, pp. 50-51.
4. Stein, *R. T.*, (Eng. Tr.), Vol. II, p. 321.

and Vinayāditya.[1] He did not consider these to be forged coins. I had the privilege of examining these coins, but I could not find anything which can substantiate Cunningham's view that they were originally guilt. In fact they appear to be genuine copper coins, which were once issued by the Karkoṭa kings of Kāśmīra. In type and execution, these coins closely resemble the electrum coins of the same rulers and are unlike the copper Toramāṇas.

Excavations further have yielded from different parts of U. P. not only electrum coins of the usual Karkoṭa type[2], but also a large number of similar copper coins[3]. It may be argued that these copper coins were issued by the Karkoṭa monarchs in their conquered provinces, perhaps in keeping with the tradition of copper currency prevailing in those territories and that they were not in circulation in Kāśmīra proper. But copper coins bearing the name of Śrī Pratāpa abound in the valley. They are undoubtedly the counterparts of the copper Śrī Pratāpa coins found in the Madhyadeśa and therefore cannot be believed to be forged copper coins which were originally guilt.

That at least one of the Karkoṭa kings Jayāpīḍa struck copper coins in his own name is conclusively proved by a passage of the *Rājataraṅgiṇī*. While speaking of the striking of coins by this monarch, Kalhaṇa declares that from a mountain with a copper mine, he obtained sufficient copper to coin hundred crores less one dinnara which bore his name[4]. The very statement that Jayāpīḍa struck coins in his *own name* should set at rest all doubt regarding the question of coining of copper money in their own name by the Karkoṭa princes of Kāśmīra.

Stein's observation that the Karkoṭa kings of Kāśmīra continued to strike Toramāṇa copper coins, has already been noted. But in view of the fact that the kings of this dynasty struck copper coins in their own name, it does not appear very

1. V. A. Smith, *Catalogue of Coins in the Indian Museum*, Vol. I, pp. 268-69.

2, Electrum coins with the name Śrī Pratāpa or Śrī-Ja-Pratāpa written over them have been recovered from the village of Bhitaware, Dt. Fyazabad. from Banda district, U. P., from Rajghat and Sarnath in the confines of Banaras and from the Monghyr district. See *Journal of the Roy. As. Soc. of Great Britain and Ireland*, 1906, p. 843 ; *Journal of the As. Soc. of Bengal, Num. Suppl.*, 1928, p. 6-9 ; *Journal of the Nvm. Soe. of India*, Vol X, part I, pp. 30-32. The Śrī Pratāpa type of coin which are also found in abundance at Kāśmīra are generally considered to be the issues of Lalitāditya. See Cunningham, *C. M. I.*, p. 40 ; Prayagdayal, *J. A. S. B.*, *N. S.*, 1928, p. 6-9. The Śrī Ja Pratāpa type of coins do not come from Kāśmīra, they are found only in the Madhyadeśa. Possibly the initial 'Ja' refers to Jayāpīḍa and the coins might have been struck by Jayāpīḍa when he might have accompanied his grand-father Lalitāditya in his victorious expedition in the Madhyadeśa and might have acted as his viceroy in the conquered regions. Altekar, *J. N. S. I.* Vol. X, part I, p. 37.

3. *J. N. S. I.*, Vol. X, part I, p. 30 ;

4. *R. T.*, Book IV, verse 617.

likely that they were also responsible for the striking of copper Toramāṇas. The survival of Toramāṇa coins in the Kāśmīrian currency upto the end of the Hindu rule does not necessarily prove that they were struck by the rulers of Kāśmīra up to that time. They might have been struck in a remote period, and still could be in circulation in succeeding ages. The abundance of these coins is considered by Stein as an evidence that they were circulated not by a particular monarch, but by a number of rulers. May be, that the Toramāṇas were struck not only by Toramāṇa but also by some of his immediate successors. But there is nothing to prove that the Toramāṇa coins were struck by the Karkoṭa kings.

VIGRAHATUṆGĪYA DRAMMA MENTIONED IN THE SIYADONI STONE INSCRIPTION.

By Dr. Sunil Chandra Ray, M.A., D. Phil.

The Siyadoni stone inscription[1] refers to several types of coins which were current in the Gwalior region in the early mediæval period. Besides *dramma*, *kākiṇi* and *varāṭaka* (cowri shell?) which were general names for coins, it refers to three distinct types of *dramma* which were known respectively as Śrīmad-Ādi-varāha, Vigrahapāla and Vigrahatuṅgīya. Ādi-varāha has been identified with the coins struck by Pratihāra Bhoja I, which have as their obverse two-lines of Brāhmī inscription (1) *Srīmad-ā* (2) *di-varāha* and as reverse the boar incarnation of Vishṇu, a man with boar's head striding right. These coins are found both in silver and in copper. The Vigrahapāla *drammas* have been tentatively equated with the silver coins of the Sassanian type, which have on one side the name Śrī Vigra(ha) and indications of Sassanian fire altar on the other[2]. But Vigrahatuṅgīya has not yet been satisfactorily identified with any actual specimen. Some scholars have expressed the view that Vigrahatuṅgīya like Vigrahapāla dramma, stands for the Śrī-Vigra(ha) types[3]. But in the Siyadoni inscription Vigratuṅgīya *dramma* and Vigrahapāla *dramma* apparently appear as two distinct type of coins. There is nothing in the context which may indicate that the two were identical.

The Vigrahatuṅgīya coins, referred to in the Siyadoni inscription, however, can be identified with existing specimens. Cunningham, in his *Coins of Mediæval India*, described a class of Kāśmīrian coins of the usual Karkoṭa type, which had

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1. Ed. Kielhorn, *Epigraphia Indica*, Vol. I, pp. 162-179.

2. It is difficult to say who struck these Śrī-Vigra coins. Some scholars are of the opinion that they might have been struck by some king of the Imperial Pratihāra family. "We cannot fix the country of Vigraha. As the Siron inscription calls the coins Vigrahapāla drammas, the prince may have belonged to the Raghuvaṁśa family of Bhoja Deva as all his known successors took the suffix of Pāla." Cunningham, *Coins of Mediæval India*, p. 51. Others have ascribed them to one or other Vigrahapāla of Magadha, the finer specimens belonging preferably to Vigrahapāla I. "The pieces which bear the legend Śrī-Vi or Śrī-Vigra may be assigned with almost positive certainty to one or other of the kings of Magadha named Vigrahapāla. The least barbarous specimens seem to have been issued by the first king of that name, about 900 A. D. The wholly corrupt copies may be as late as the time of Vigrahapāla III, in the middle of the 11th century ;" V.A. Smith, *Catalogue of the Coine in the Indian Museum*, Vol. I, p. 233. Whatever may be the case, we are not concerned with that in the present paper.

3. V. V. Mirashi, The Coins of the Kalachuris, *Journal of the Numismatic Society of India*, Vol. III, Part I, p. 38.

as their obverse headless king of an extremely debased type, and as reverse an equally debased form of seated goddess. Cunningham read the legend 'Śrī-Vigraha' which was written on the right field of the obverse. The great archæologist was conscious of two other letters, occupying the left field, which, however, he could not read. "Two letters to the left, not read"[1]. Vincent Smith, in his *Catalogue of the Coins in the Indian Museum*, Vol. I, accepted the reading of Cunningham, but he also failed to read the words on the left margin[2]. Dayaram Sahni, while excavating the ancient site of Parihāsapura, discovered from the so-called Rājavihāra[3] a small earthen vessel which contained several coins of the type referred to above. He deciphered the full legend. The letters on the right field of the obverse, accordjng to him, were 'Śrī-Vigraha' and the two letters on the left were read by him as 'Tuṅga'[4]. There can be little doubt that the Vigrahatuṅgīya coin mentioned in the Siyadoni inscription actually refers to these Kāśmīrian issues.

The cause for the circulation of Vigrahatuṅgīya coins of Kāśmīra in the plains of North India is difficult to explain. In the *Rājtaraṅgiṇī* Lalitāditya's expedition in North India has been described in detail. His grandson Jayāpīḍa's adventures in the same region has also been hinted at. It may well be questioned whether anyone of them had struck the Vigrahatuṅgīyas in the way of their victorious career in the heart of India. A large number of electrum coins of the typical Kāśmīrian type with the legend Śrī-Pratāpa and another class of similar type with the legend Śrī-ja-Pratāpa, have been recovered from a number of places in Uttar Pradesh and Bihār.[6] The former has been generally attributed to Lalitāditya and it has been suggested that the latter might have been struck by Jayāpīḍa[5]. Naturally therefore they could not be responsible for the striking of the Vigrahatuṅgīya

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1. *Coins of Mediæval India*, p. 44
2. *Catalogue of the Coins in the Indian Museum*, Vol. I, p. 266.
3. *Annual Report, Archaeological Survey of India*, 1915-16, p. 59. It is likely that the monastery unearthed by Sahni was the Rājavihāra, said to have been built by Lalitāditya in the *Rājataraṅgiṇī*. (*R.T.*, IV, 200). But as no inscription has been found in it, it is difficult to be sure on the the point. According to Kalhaṇa, Cankuna. the Tukhāra minister of Lalitāditya too built a monastery at Parihāsapura. (*R. T.*, IV, 211). So what Sahni considers to be Rājavihāra may well be the minister's monastery. In any case, the monastery dates back to the Karkoṭaka period.
4. *Ann. Rep., A. S. I.*, 1915-16, p. 60.
5. The Śrī-Pratāpa or Śrī-ja-Pratāpa type of Kāśmīrian coins have been recovered from the village of Bhitaware, Dt. Fyzabad, from Banda district, U. P., from Rajghat and Sarnath, in the confines of Banaras and from Monghyr district; *Journal of the Royal As. Soc. of Great Britain and Ireland*, 1906, p. 843; *Journal of the As. Soc. of Bengal, Num. Suppl.*, 1928, p. 6-9; *Journal of the Num. Soc., of India*, Vol. X, part I, pp. 30-32.
6. *J. A. S. B., N. S.*, XLI, 1928, pp. 6-9, *J. N. S. I.*, Vol. X, part I p. 37.

coins, unless it is presumed that they struck one type of coin in the eastern provinces of the Madhyadeśa and another type in Central India. But even then, it cannot be explained, why any of these monarchs would strike the legend Vigrahatuṅga on his coin. None of them are known to have assumed such a title. It is however not unlikely that in the troubled years of the 8th-9th century, besides Lalitāditya and Jayāpīḍa other Kāśmīrian adventurers too had carried their arms to the plains of India. One of these princes, probably called Vigrahatuṅga, who unfortunately does not find mention in the *Rājataraṅgiṇī* or in any other source known to us, might be responsible for striking and circulating the Vigrahatuṅgīyas. But whoever this king might have been, the find of his coins from the Rājavihāra and in the same vessel that contained also the coins of Durlabha-vardhana and Jayāpīḍa[1], clearly shows that he held his sway over Kāśmīra and that perhaps he was not much removed in time from the two other associates.

According to the Siyadoni inscription, the Vigrahatuṅgīya *dramma* was current in the Gwalior region in Vikrama samvat 969. This, however, should not be taken to be the date of its striker. Coins generally survive their issuers and may remain in circulation for indefinite period.

1. *Ann. Rep, A. S. I.*, 1915-16, p. 60.

KAUṬILYA AND INDIAN NUMISMATICS

DR. D. C. SIRCAR, M. A., Ph. D., OOTACAMUND

It is well-known to numismatists that *Dharaṇa* was the name usually applied to a particular measure used in weighing silver and also to a silver coin of that weight, while *Paṇa* was similarly the name often applied to a weight as well as a coin of copper. But it is difficult to reconcile the evidence of the *Kauṭilīya Arthaśāstra* in regard to Paṇa and Dharaṇa with what is known about them from other sources.

The Smṛitis of Manu (VIII, 133 ff.), Yājñavalkya (I, 363 ff.) and Vishṇu (IV, 4 ff.) agree remarkably in offering the following table for the weights of gold, silver and copper.

GOLD

18	Gaura-sarshapas (white mustard seeds)	=	1	Krishṇala (Guñjā berry, also called Raktikā, i.e. modern Ratī)		
90	,,	=	5	,,	=	1 Māsha
1440	,,	=	80	,,	=	16 ,, 1 = Suvarṇa

SILVER

36	,,	=	2	,,	1 =	Rūpya-māsha (i.e. Māsha of silver)
576	,,	=	32	,,	16 =	,, 1 Dharaṇa or Purāṇa (also called silver Kārshāpaṇa by Manu according to one interpretation.)

COPPER

1 Karsha	=	Paṇa or Kārshāpaṇa

None of these authorities gives the weight of Karsha, from which the name Kārshāpaṇa was apparently derived ; but the *Amarakosha* (Vaiśya-varga, 85-86) says that 5 Guñjās (Ratīs) = 1 Ādya-māsha and 16 Ādya-māshas = 1 Karsha which is therefore equivalent to a modern standard Tolā. This view is supported by other authorities including, as will be seen below, Kauṭilya's *Arthaśāstra*. Thus the weight of the gold Suvarṇa and copper Paṇa or Kārshāpaṇa is 16

Māshas = 80 Ratīs = 1440 Gaura-sarshapas, while the silver Dharaṇa, Purāṇa or Kārshāpaṇa weighs 16 Rūpya-māshas = 32 Ratīs = 575 Gaura-sarshapas. The weight of a Guñjā berry or Rati is now usually regarded as 1·83 grains. The gold Suvarṇa and copper Paṇa or Kārshāpaṇa therefore weigh 146·4 grains and the silver Dharaṇa, Purāṇa or Kārshāpaṇa only 58·56 grains.

In connection with the table quoted above, it may be noted that the names Paṇa and Kārshāpaṇa were sometimes exclusively applied to the copper coin weighing one Karsha or 80 Ratīs. Thus the *Mitākshharā* (on Yājñavalkya, I, 365) refers to Manu and says : *Karsha-sammitas = tāmra-vikāraḥ Paṇa-saṁjño bhavati Kārshāpaṇaś = cha*. The same opinion is expressed by the *Smṛitichandrikā* quoted by Kane in his *History of Dharmaśāstra*, Vol. III, p, 120, note. But there is no dearth of references in ancient Indian literature to the name Kārshāpaṇa being applied to the coins of all the three metals, viz., gold, silver and copper (cf. *Ante*, Vol. XIII, pp. 184 ff.), while, as we shall see below, the name was often applied exclusively to the silver coin. The name Paṇa was likewise generally used to indicate the copper coin ; but, as will be shown below, we have authorities speaking of the gold or the silver Paṇa. There is also divergence of opinion in regard to the weight of the copper Paṇa, which is 1 Karsha or 80 Ratīs according to most of the authorities. Nārada (Pariśishṭa, verse 58) and some other authors (cf. *Mitākshharā* on Yājñavalkya, I, 365) speak of the Paṇa as weighing 20 māshas : *Māsho viṁśatimo bhāgaḥ Paṇasya parikīrtitaḥ* (cf. *Ante*, Vol. XIII, pp. 187 ff.). This would make a Paṇa = 100 Ratīs. A Paṇa weighing 120 Ratīs is suggested by the *Agni Purāṇa*, chapter 227, verse 2 : *Kṛishṇalānāṁ tathā shashṭyā Karsh-ārdhaṁ Rāma kīrtitam*[1] But these Paṇas of 100 and 120 Ratīs may have been really $1\frac{1}{4}$ and $1\frac{1}{2}$ Paṇas of the standard weight, which were prevalent in certain areas. Similarly, Bhāskarāchārya's *Līlāvatī* (I, 3) makes 24 Ratīs = 1 Dharaṇa and 48 Ratīs = 2 Dharaṇas = 1 Gadyānaka. This Dharaṇa was only $\frac{3}{4}$ of the Dharaṇa weighing 32 Ratīs, known from authorities like Manu.

In chapter 40 of the *Kauṭilīya Arthaśāstra* (Shamasastry's translation, p. 113), we have the following information regarding the weights of the Suvarṇa or Karsha and Dharaṇa.

GOLD

5 Guñjās (Ratīs)	= 1	Suvarṇa-māsha (i.e. Māsha of gold)		
80 ,,	= 16	,,	=	1 Suvarṇa or Karsha

1. According to the *Sabdakalpadruma* (s.v. *tolaka*), the apothecaries' Karsha is equal to two Tolakas and is therefore 160 or 192 Ratis in weight.

SILVER

88 Gaura-sarshapas = 1 Rūphya-māsha
(i.e. Māsha of silver)
1408 ,, = 16 ,, = 1 Dharaṇa

It will be seen that Kauṭilya's views in regard to the weights of gold tally with those of Manu, Yājñavalkya and Vishṇu cited above; but what he says about the weights of silver is quite different. Kauṭilya's silver Māsha weighs 88 Gaura-sarshapas, while the silver Masha of the other authorities is only 36 Gaura-sarshapas in weight. Thus the Rūpya-māsha of the *Arthaśāstra* is in weight more than double the Rūpya-māsha known from other sources. Kauṭilya's Dharaṇa is consequently much heavier than the silver Dharaṇa, Purāṇa or Kārshāpaṇa weighing 32 Ratīs (58·56 grains) and seems to weigh about 143·14 grains. It can hardly be ignored that Kauṭilya's silver Dharaṇa is just a few grains lighter than the Karsha (146·4 grains), which is the weight of the gold Suvarṇa of all authorities including Kauṭilya himself as well as of the copper Paṇa or Kārshāpaṇa of Mauu, Yājñavalkya and Vishṇu. The only difference between Kauṭilya's silver Māsha and the Māsha of gold and copper of other authorities is that, while the former weighs 88 Gaura-sarshapas, the weight of the latter is 90 Gaura-sarshapas. There is thus a small difference of only two white mustard seeds.

D. R. Bhandarkar notices the above peculiarity of Kauṭilya's Dharaṇa in his *Lectures on Ancient Indian Numismatics*, p. 94, and observes, "Those who have read Cunningham's book entitled *Coins of Ancient India* must be familiar with his remark that India produced little or no silver. Kauṭilya, on the other hand, speaks of many varieties of silver and in no place gives us the impression that it was scarce in his time. Is it possible that shortly after Kauṭilya the sources of producing silver in India began to fail and that consequently, as silver became scarce and increased in value, the Purāṇa had to be diminished in weight ?" Strangely however the learned author offers an altogether contradictory suggestion at p. 162 of the same work. Here he says, "Kauṭilya's *Arthaśāstra* allowed as much as 31·25 per cent. of alloy in silver coins, whereas the silver Kārshāpaṇas assayed by Cunningham contained only 20 per cent. of it. This means that, during the period when Kauṭilya lived, silver had become so expensive that economic exigencies necessitated a higher percentage of alloy being mixed with it in order that the original standard of value might be maintained."

That Bhandarkar's first suggestion is wrong is demonstrated clearly by the fact that authorities, later not only than the

author of the *Arthaśāstra* but also than the works of Manu and others, sometimes speak of a silver Kārshāpaṇa one Karsha or 80 Ratīs in weight. We have seen how the *Amarakosha* (*circa* sixth century A.D.) defines Karsha as of the above weight. Now the same work (*loc. cit.*, verse 88) further says: *Kārshāpaṇaḥ kārshikaḥ syāt kārshike tāmrike Paṇaḥ*. Kshīrasvāmin, the celebrated commentator on the *Amarakosha*, who possibly flourished about the eleventh century A.D., gives the following explanation of the passage quoted above: *Karsha-sambandhinā paṇyate vyavahriyate = nena rūpya-rūpakeṇa Kārshāpaṇaḥ; Karshaḥ pramāṇam = asya kārshikaḥ; tāmramayaṁ Karsha-pramāṇaṁ tu rūpyaṁ Paṇaḥ*. Thus the *Amarakosha* seems to take one Karsha weight of gold and silver as Kārshāpaṇa and of copper as Paṇa, while the commentator clearly says that Kārshāpaṇa is a silver coin weighing one Karsha (80 Ratīs) and that Paṇa is a copper coin of the same weight. Kshīrasvāmin applies the name Kārshāpaṇa exclusively to the silver coin and the name Paṇa exclusively to the copper coin and this is supported by the tradition (*Ante*, Vols. VII, p. 83; XIII, p. 185) equating 16 Paṇas (of cowries) with one Kāhaṇa (Prakrit *Kahāvaṇa*, Sanskrit *Kārshāpaṇa*). In any case, it is clear that the silver Kārshāpaṇa weighing 146. 4 grains (or slightly less, as indicated by the *Arthaśāstra*) was known in some parts of the country at least theoretically, although we have no silver punch-marked coins of this weight. The very name Kārshāpaṇa (i.e. a coin weighing one Karsha), applied to the silver coin, also suggests that its original weight, even if theoretical, was 80 Ratīs.

In chapter 78 of the *Arthaśāstra* (cf. *op. cit.*, p. 229), Kauṭilya says: *Suvarṇān = Māshakam = apaharato dvi-śato daṇḍaḥ; rūpya-Dharaṇān = Māshakam = apaharato dvādaśa-Paṇaḥ*. It is said that if a goldsmith steals in the process of making coins one Māsha from the gold coin called Suvarṇa he will be fined 200 (Paṇas) while his fine will be 12 Paṇas if he steals one Māsha from a silver Dharaṇa. This passage is interesting for several reasons. In the first place, not only are the words *Suvarṇa* and *Dharaṇa* appear to be used here in the specific sense of coins of gold and silver respectively, but the standard coin is mentioned as Paṇa although it is conspicuous by its absence in Kauṭilya's discussion on the weights of the metals. Secondly, a very rough estimate of the relative value of gold and silver is possible on the basis of the amounts of fines for stealing one Karsha of gold or silver from the coins inspite of the amount of alloy in them. The ratio between gold and silver thus comes roughly to 1 to 16. 6. Reference in this connection may be made to the medieval work *Śukranītisāra* (IV, 2, 92-93) according to which gold was sixteen times the value of the same weight of silver which again was eighty

times the price of the same weight of copper. As Kauṭilya's Suvarṇa and Dharaṇa are practically of the same weight standard, it may be inferred that 16 silver Dharaṇas made one gold Suvarṇa. We know that the equation of 16 silver coins with one gold coin is indicated not only by Bhāskarāchārya's *Līlāvatī* (I, 2, where 16 Paṇas or 4 Kākinīs or 80 cowry-shells are equated to a silver Dramma and 16 Drammas to 1 gold Nishka) but also by the Baigram plate of 448 A.D. (*Select Inscriptions*, p. 343, where we have 16 silver Rūpakas equated to one gold Dīnāra), although the weight of the gold and silver coins was not in all cases the same and the relative value of the two metals would differ.

But the most important question that arises now is in regard to the value of Kauṭilya's Paṇa. An interesting passage in chapter 33 of the *Arthaśāstra* (*op. cit.*, pp. 86 87) says: "The Superintendent of Mint (*Lakshaṇādhyaksha*) shall carry on the manufacture of silver coins (*rūpya-rūpa*) made up of four parts (i.e. one-fourth) of copper and one-sixteenth (Māsha) of any one of the metals *tīkshṇa*, *trapu*, *sīsa* and *añjana*. There shall be a Paṇa, a half Paṇa, a quarter and one-eighth. Copper coins (*tāmra-rūpa*), made up of four parts of alloy (*pādājīva*) shall be a Māshaka, half Māshaka, a Kākanī and half a Kākanī." As indicated by a commentator, who is supported by Nārada (Pariśishṭa, verse 58), Kākanī is one-fourth of a Māsha. Kauṭilya thus speaks of the minting of the silver coins entitled Paṇa, ardha-Paṇa, pāda-Paṇa and ashṭa-bhāga-Paṇa as well as of copper coins called Māsha, ardha-Māsha, pāda-Māsha (Kākanī) and ashṭa-bhāga-Māsha (ardha-Kākanī).

It is very interesting to note that Kauṭilya does not speak of the minting of gold coins at all, although reference is made elsewhere in the *Arthaśāstra* to the making of the Suvarṇa by the goldsmith. Thus the gold coinage appears to have been outside ordinary use, as is also indicated by the evidence of other sources available on the subject (cf. *Ante*, Vol. XIII, pp. 184 ff.). A similar position of the gold coins prevailed in India also in the period of the great Mughals. About the gold coins of Akbar, Moreland observes (*India at the Death of Akbar*, p. 55), "The coins in regular use were silver and copper. Gold coins were also struck ; but most of the twentysix denominations may be described as 'fancy' and the three which were struck regularly were rarely found in circulation being too large for retail transactions and being sought mainly in order to be hoarded." It is also interesting to note that Akbar's revenue was registered in the copper coins called Dām weighing a little over 1 Tolā and 8 Māshas (*Hobson-Jobson*, s.v.) while cowry-shells were widely used as money by the poorer classes

of the subjects of the Mughal emperor (cf. *Ante*, Vol. VII, pp. 82 ff.).

Another interesting feature of the above passage of the *Arthaśāstra* is that the word *rūpa* (in *rūpya-rūpa* and *tāmra-rūpa*) has been used in the sense of a 'coin'. We have seen that the name Rūpaka is applied to the silver coin in Kshīrasvāmin's commentary on the *Amarakosha* and in the Baigram plate. This name of the silver coin can also be traced in works like the *Bṛihatsaṁhitā* (Chapter 81). But the word *rūpa* in the general sense of a coin is peculiar, as it essentially means a mark or figure. A coin was thus usually called a *rūpya* owing to a *rūpa* being imprinted on it by the stroke of a hammer (cf. *Ante*, Vol. VII, p. 80). The *Kāśikā* says: *nighātikā-tāḍanādinā Dīnārādishu rūpaṁ yad = utpadyate tad = āhatam = ity = uchyate ; āhataṁ rūpam = asya rūpyo Dīnāraḥ ; rūpyaṁ Kārshāpaṇam* (Kane, *op. cit.*, p. 126, note).

But the most important indication of the passage in question is that Paṇa and Māshaka are regarded as the standard coins respectively of silver and copper while the silver coin elsewhere mentioned in the *Arthaāśstra* itself as Dharaṇa is passed over in silence. As we have suggested elsewhere (*Ante*, Vol. XIII, pp. 184 ff.), this copper Māshaka may be no other than the copper Paṇa of 80 Ratīs, so called because it was one-sixteenth of the standard silver coin in value. But it is really strange that the name Paṇa, given to the copper coin of 80 Ratīs by most authorities, should have been used by Kauṭilya to indicate exclusively the standard silver coin. A commentator explains Kauṭilya's silver Paṇa as Kārshāpaṇa, possibly implying thereby that it is the same as Kauṭilya's silver Dharaṇa of a little less than 80 Ratīs. It should be remembered that the standard Dharaṇa of 32 Ratīs is not recognised by the *Arthaśāstra*.

There is a controversy amongst scholars about the nature and value of Kauṭilya's Paṇa which is the standard coin very often mentioned or implied in the *Arthaśāstra* in the specification of salaries and fines. In chapter 93 of the work (*op. cit.*, pp. 276-77), Kauṭilya prescribes the various grades of salaries to be paid to the king's officials and dependants as 48000, 24000, 12000, 8000, 4000, 2000, 1000, 500, 250, 120, and 60 of the standard coin, no doubt Paṇa. The chief conductor of sacrifices, the teacher (of the princes), the chief minister, the chief priest, the commander-in-chief of the army, the crown-prince, the queenmother and the chief queen were each to receive 48000, while the artisans and craftsmen (carpenters, etc.) were allotted 120 and servants doing miscellaneous work 60 only. Scholars are not agreed as to the value of the coin

(Paṇa) intended and the period for which the salary was to be paid. K.P. Jayaswal (*Hindu Polity*, II, p. 136) holds that the salaries were yearly and that the Paṇas were coins of silver. V. R. R. Dikshitar (*Mauryan Polity*, p. 151) thinks that the salaries were to be paid monthly, while K.V. Rangaswami Aiyangar (*Ancient Indian Polity*, pp. 44-45) believes that the salaries were paid monthly in gold Paṇas. P.V. Kane (*op. cit.*, pp. 120 ff.) holds that the salaries were meant by Kauṭilya to be paid monthly in copper Paṇas.

As to the question whether the salaries mentioned in the *Arthaśāstra* were intended to be monthly or annual, attention of scholars may be drawn to the following passage occurring in chapter 28 of the work: *Triśataṁ chatuḥpañchāśach=ch=āhorātrāṇāṁ karma-saṁvatsaraḥ ; tam=Ashāḍhī-paryavasānam=ūnaṁ pūrṇaṁ vā dadyāt.* Shamasastry translates it as follows: "Three hundred and fiftyfour days and nights is a working year. Such a work (actually, such a year, i.e. such annual work) shall be paid for more or less in proportion of its quantity at the end of the month of Ashāḍha." This may suggest that the salaries of the royal officials, as mentioned in the *Arthaśāstra*, were paid on an annual basis. Such a custom is partially followed in the Zamindari estates of Eastern India even to this day. The Zamindar's officials in the rural areas often take amounts of money or quantities of corn, etc., out of their salary as occasions demand; but the accounts of the amounts payable to them for the year are cleared only during the principal season for collection of revenue from the tenants or at the end of the financial year. *Wilson's Glossary of Judicial and Revenue Terms* recognises the word *Sāliāna* in the sense of such annual salaries. Thus the suggestion that the salaries of the royal officials as mentioned in the *Arthaśāstra* are annual is not improbable.

But Kane (*op. cit.*, pp. 123 ff.) draws our attention to Manu, VII, 125-26, saying that the wages for the lower class of menial servants of the king (such as those who sweep the house and bring water, according to Kullūka) was one Paṇa a day while that of a superior menial servant were 6 Paṇas a day and that the former (according to Kullūka who prescribes a graded increase in the case of the latter class) was to get in addition one pair of garments or cloth every six months and every month a Droṇa (i.e. 1024 Mushṭis or handfuls according to Kullūka, nearly 1¼ or 1½ or 2 Maunds) of paddy. Kane observes, "Artisans and craftsmen were, according to Kauṭilya, to get 120 Paṇas. If this were yearly, they would get only 10 Paṇas a month, while, according to Manu quoted above, even the lowest menial was to get a Paṇa day. Therefore, 120 Paṇas of copper were the monthly salary of an artisan (according to Kauṭilya)."

It will however be seen that Kauṭilya specifically describes Paṇa as a silver coin while he may have spoken of annual and not monthly salaries. If calculated on this basis, an artisan, according to the *Arthaśāstra*, received 10 silver coins a month. We have seen how 16 copper coins were usually regarded as equivalent to one silver coin. Wilson's *Glossary* points out that, from this fixed relation between the Kāhaṇa (Kārshāpaṇa) and Paṇa, the word *paṇa* is often used in Orissa to indicate the sixteenth of any given unit. In that case, an artisan's daily salary comes roughly to 5⅓ copper coins which may be compared with the salary of 6 Paṇas, prescribed by Manu for a superior servant of the king.

The above rates of wages, prescribed by Kauṭilya and Manu, may also be fruitfully compared with those prevalent in the days of the Mughal emperor Akbar (1556-1605 A.D.). From a careful study of the *'Ain-i-Akbarī*, Moreland (*op. cit.*, pp. 56, 190-92) shows that Akbar sanctioned the following daily rates of wages: ordinary labourers 2 Dāms, superior labourers 3 to 4 Dāms, carpenters 3 to 7 Dāms and builders 5 to 7 Dāms. The Dām was a copper coin a little over 1 Tolā and 8 Māshas in weight and $\frac{1}{40}$ of the silver Rūpiya in value. In this connection Moreland has also pointed out that the purchasing power of an Akbarī Rūpiya was nearly 6 Indian Rupees in 1912 (i. e. before the First World war) and that the Dām was approximately 2¾ Annas in value. He concludes, "In several instances the lowest grades of servants were entitled to less than two Rupees monthly (65 Dāms for a sweeper, 60 for a camel-driver, 70 for a wrestler, and so on), while the bulk of the menials and of the ordinary foot-soldiers began at less than three Rupees. The minimum for subsistence at the Court is probably marked by the lowest grade of slaves who were allowed one Dām daily, equivalent to three-quarters of a Rupee monthly in the currency of the time."

The salaries of the higher royal officers as given in the *Arthaśāstra* may be similarly compared with those of Akbar's officers styled Mansabdārs, as known from the *'Ain-i-Akbarī* (Blochman's tran., Vol. I, 1939, pp. 247-59). But such a comparison is not likely to be fruitful for various reasons. More profitable will be a comparison of the *Arthaśāstra* figures with the salaries of royal officers as known from the *Rājataraṅgiṇī* (cf. Stein's tran., Vol. II, p. 327). Bhaṭṭa Udbhaṭa, court-poet of the eighth century Kashmirian king Jayāpīḍa, received a daily salary of 100000 cowries probably paid in 500 Khārīs of grain. According to Stein's calculation, which is based on the equation of 100 cowries (Kashmiri *hat*, Sanskrit *śata*) with an Akbarī Dām as suggested by Abul Fazl, Udbhaṭa's salary comes to about 25 Akbarī Rupees a day. Similarly the store-

keeper (*Gañjavara*) Lavaṭa received a daily salary of 2000 cowry-shells (½ Akbarī Rupee) from king Śaṅkaravarman (883-902 A. D.) and king Ananta (1028-63 A. D.) allowed his favourite officials Rudrapāla and Diddāpāla respectively 150000 cowries (37½ Akbarī Rupees) and 80000 cowries (20 Akbarī Rupees) a day. It will be seen that the court-Pandit received the equivalent of about 9000 silver coins a year, the officers 13500 and 7200 and the store-keeper 180. Kauṭilya precribes the following rates in addition to those noticed above: 24000 for the officer in charge of the palace-gate, the superintendent of the harem, the chief judge, the collector-general and the chamberlain; 12000 for a prince, the nurse of a prince, the chief of the constables, the officer in charge of a town, the superintendents of law or commerce and of manufactories, the members of the council of ministers, and the governors of districts and of boundaries; 8000 for the chiefs of military corporations, elephant force, cavalry, chariots and infantry and for commissioners; 4000 for the superintendents of infantry, cavalry, chariots and elephants, and the guards of timber and elephant forests; 2000 for the chariot-driver, the physician of the army, the trainer of horses, the chief carpenter and the chief animal-rearer; 1000 for the foreteller, the reader of omens, the astrologer, the reader of *Purāṇas*, the story-teller, the bard, the retinue of the priest and all superintendents of Departments; 500 for trained soldiers, the staff of accountants and writers and the trumpet-blowers; 250 for musicians.

Sometime ago (see *Ante*, Vol. VII, p. 83, note 3), I myself expressed doubts whether Kauṭilya's Paṇa was really a silver coin of that name. My argument was then based on the following fact. It is well-known that ancient Indian works on law speak often of the three fixed fines or amercements called Sāhasa, viz. *prathama-sāhasa* (first amercement), *madhyama-sāhasa* (middlemost amercement) and *uttama-sāhasa* (highest amercement). According to Śaṅkhalikhita quoted by Kane (*op. cit.*, p. 393), the first amercement amounts to 24 to 91 Paṇas, the middling to 200 to 500 Paṇas and the highest to 600 to 1000 Paṇas in proportion to the value of the matter in dispute or the nature of the injury caused. Manu (VIII, 138) and Vishṇu (IV, 10) state that the first, middling and highest amercements are respectively 250, 540 and 1080 Paṇas. Nārada (Sāhasa, verses 7-8) says that the lowest limits of the three amercements are respectively 100, 500 and 1000 Paṇas and that the highest amercements may include death penalty, forfeiture of all property, banishment, branding and cutting off of a limb. There is absolutely no doubt that Manu and Yājñavalkya mean by Paṇa the copper coin of 80 Ratīs. Now in chapter 74 of the *Arthaśāstra*, Kauṭilya

gives the following specification of the three fixed fines: (1) first amercement—between 48 and 96 Paṇas, (2) middlemost amercement—between 200 and 500 Paṇas, and (3) highest amercement—between 200 and 1000 Paṇas. It will be seen that, broadly speaking, there is not a very great disagreement amongst the authorities on the amounts of the amercements and it is really difficult to believe that in the above specification of the amounts of the fixed fines, while most authorities speak of Paṇa as a copper coin, Kauṭilya alone regards it as a silver coin which again, if it is the same as his Dharaṇa, weighs nearly 80 Ratīs. It was therefore suggested that by Paṇa in these cases Kauṭilya probably means really the well-known copper coin of 80 Ratīs and not the silver Paṇa mentioned elsewhere in the *Arthaśāstra*.

In pursuing the above line of argument, it may be further pointed out that often the same amounts of Paṇas for particular offences are prescribed by Kauṭilya and, say, Yājñavalkya who undoubtedly uses the name Paṇa for the copper coin. We may quote here a few instances to illustrate the point although they may be easily multiplied. In chapters 89-90 of the *Arthaśāstra*, Kauṭilya prescribes the following punishments: (1) when one falsely accuses another of theft, while in reality the latter is guilty of adultery, the complainant shall be fined 500 Paṇas; he who lets off an adulterer by receiving money shall pay a fine of eight times that amount; (2) adultery with a nun shall be punished by a fine of 24 Paṇas; (3) A man forcing his connection with a herlot shall be fined 12 Paṇas, while many persons committing rape on a single such woman shall each of them pay a fine of 24 Paṇas. The above three regulations may be compared with Yājṇavalkya, II, 304, 296 and 294 respectively. It will be seen that the numbers of Paṇas prescribed by Yājñavalkya for the offences in question are exactly the same as in the *Arthaśāstra* with only a slight modification in the case of a man forcing his connection with a Dāsī being made punishable by a fine of 10 Paṇas (instead of 12 Paṇas as prescribed by Kauṭilya). We must not be understood to suggest that there is no great difference between Kauṭilya and Yājñavalkya in the specification of fines. As a matter of fact there is often considerable divergence of opinion between the two authorities. As for instance, according to Kauṭilya, a man having sexual connection with a woman against the order of nature or with another man shall pay the first amercement (between 48 and 96 Paṇas according to the *Arthaśāstra*); but the same offences are punishable by a fine of 24 Paṇas only by Yājñavalkya (II, 296). The point to which we are inclined to invite attention is that the same amounts of Paṇas for particular offences have often been

prescribed by both Kauṭilya and Yājñavalkya and that this fact creates a difficulty in regarding Kauṭilya's Paṇa as a silver coin when Yājñavalkya's Paṇa was certainly a copper coin. It will also be noticed that there are cases where the fine for a particular offence prescribed by Yājñavalkya is only 24 Paṇas but by Kauṭilya between 48 and 96 Paṇas, i.e. between double and four times of Yājñavalkya's number. This may no doubt suggest that Kauṭilya's Paṇa was really a copper coin (Māsha, $\frac{1}{16}$ of the standard silver coin in value), which was described in the *Arthaśāstra* as of silver through confusion. But there are other considerations which render such a theory not entirely beyond the range of doubt.

It seems that just as the name Kārshāpaṇa was applied to the coins and weights of gold, silver and copper although it was often exclusively used to indicate the silver coin, the name Paṇa, even if it was often regarded as the exclusive appelation of the copper coin, was similarly sometimes applied to coins of gold and silver as well. The application of the name Paṇa to coins of metals other than copper is not restricted to the *Arthaśāstra* which speaks of the silver Paṇa. The *Rājanīti-prakāśa* (part of Mitramiśra's *Vīramitrodaya* of the 17th century, Chowkhamba series, p. 294) refers to the gold Paṇa which is also mentioned by Bhāruchi referred to by Kane (*op. cit.*, p. 393, note). That Paṇas of gold and silver were both known in ancient India is further supported by the use of the word in South India. Wilson's *Glossary* says under *Paṇa*: "The same word becoming *Paṇam* is Tamil and Malayalam signifies 'money', also a small coin, both of silver and gold, transformed by European pronunciation to *Fanam*: the gold Paṇam was properly the sixteenth of a Hūn." For the gold and silver Paṇams prevalent in South India during the medieval period, see *Hobson-Jobson*, s.v. *Fanam*.

Another fact that cannot be ignored in this connection is the great divergence of views about the metal in which the fines were to be paid. Kane (*op. cit.*, p. 393, note) observes, "According to Vijñāneśvara, the figures of fines in such verses as Manu, VIII, 378, where no metal is specified, the Paṇas are those of copper, while according to Bhāruchi, quoted in the *Sarasvatīvilāsa*, p. 150, they are of gold. The *Sarasvatīvilāsa* remarks that local usage is to be followed. The Vyavahāra-mayūkha (p. 255) states that, in all texts about fines, the mention of a number without specifying the object to which it refers is to be deemed to refer to Paṇas, that Paṇa is a copper piece one Karsha in weight and that Karsha is one-fourth of a Pala (320 Ratīs). Bṛihaspati quoted by the *Smṛitichandrikā*, II, p. 991, states that the table in Manu, VIII, 132-36, beginning with dust particle in a beam and ending with Kārshāpaṇa

is to be followed in ordeals and fines." According to Kātyāyana (cf. *op. cit.*, p. 394), whatever fine is prescribed in the Smṛiti texts is to be paid in Paṇas of copper or their equivalent; but, where the fine is given as ¼ or ½ of a Māsha, the gold Māsha is meant and, when it is specified in full Māshas, they are meant to be of silver.

That the fines were often realised in terms of silver coins is also demonstrated by epigraphic evidence. A Gujarat inscription of the sixth century A.D. (*J.R.A.S.B.*, Letters, Vol. XVI, p. 118) among various cases prescribes for abusing and assault 6¼ Rūpakas and for infliction of wounds 48 Rūpakas, while Vishṇu (V, 66-67) prescribes for the same offences respectively 36 and 64 Paṇas of copper. A Kannaḍa inscription of the eleventh century (*Ep. Ind.*, Vol. XX, p. 66) speaks of the fines of 2 Paṇas for abusing, 12 Paṇas for assault, 3 Gadyāṇas for drawing out the dagger, 12 Gadyāṇas for stabbing and 3 Gadyāṇas for adultery committed by a bachelor. As we have seen, Gadyānaka was a silver coin 48 Ratīs in weight and was equal to 1½ standard Dharaṇa-Purāṇa-Kārshāpaṇas of silver, although a small gold coin called Gadyāṇaka is known from another inscription of the same area (*Ep. Ind.*, Vol. III, pp. 6-7). The Paṇa of the Kannaḍa inscription may be a silver Fanam. The *Arthaśāstra* (chapter 75) generally prescribes 12 Paṇas for abusing, and for assault with or without the infliction of wounds 48 and 24 Paṇas respectively (chapter 76). It will be seen that 48 Rūpakas are also prescribed for inflicting wounds in the sixth century inscription referred to above. The authorities apparently differed often in regard to the amount of fine for a particular offence. But a comparison of the views of the *Arthaśāstra* with those of others does not show beyond doubt that Kauṭilya's Paṇa was not a silver coin as stated in the *Arthaśāstra*.

The above discussion will show that the fines, sometimes given specifically in Paṇas and often mentioned without such specification, were usually regarded as payable in copper Paṇas, but that there was no absolute unanimity amongst the authorities on the subject. Thus, while it is not altogether impossible that Kauṭilya's Paṇa is represented as a silver coin in the *Arthaśāstra* owing to a confusion and is really the copper coin of that name weighing 80 Ratīs, the possibility of the *Arthaśāstra* representing a genuine tradition regarding the silver Paṇa recognised in some areas of the country in a certain age is not precluded. It is difficult to be definite on this point in the present state of our knowledge; but I now hesitate to characterise Kauṭilya's description of the silver Paṇa as a mistake due to confusion. The commentator's interpretation of Kauṭilya's Paṇa apparently as a silver Kārshāpaṇa can

hardly be ignored in this connection. Moreover. why should we be suspicious about the quite clear description of Paṇa and its subdivisions in the *Arthaśāstra* when no other case of similar confusion has been detected in any other part of the work ?

Before concluding this paper we consider it necessary to take into account Kane's arguments in favour of taking Kauṭilya's Paṇa as a copper coin. He says (*op. cit.*, pp. 123-25), "Kauṭilya (in V, 3) says that......60 Paṇas were to be the equivalent of one Āḍhaka of corn (*shashṭi-vetanasy = āḍhakaṁ hiraṇy-ānurūpaṁ bhaktaṁ kuryāt*). An Āḍhaka came to only 256 Mushṭis (handfuls) of corn and even in famine times one Āḍhaka could not have cost 60 silver Paṇas, much less golden ones. In V, 3, Kauṭilya declares that an ordinary Dūta should get ten Paṇas for a journey of one Yojana and twice the wages for each Yojana upto one hundred. A Yojana, according to Kauṭilya himself (II, 20) is equal to 8000 Dhanus (according to another reading, 4000 Dhanus), a Dhanus being equal to four Aratnis (each Aratni being 24 Aṅgulas). So, taking the highest figure, a Yojana was at the most about 9 or 10 miles (or only 4½ or five miles according to the other reading). To hold that 10 silver Paṇas were allowed to an ordinary Dūta for going even ten miles (which he could cover in half a day or less) would be too much." A careful examination of the two points raised would however show that both of them are wrong.

In the first place, the passage *shashṭi-vetanasy = āḍhakaṁ kṛitvā hiraṇy-ānurūpaṁ bhaktaṁ kuryāt* has been misunderstood by both Kane and Shamashastry but has been correctly interpreted by U.N. Ghoshal in his *Hindu Revenue System*, p. 156, and R. G. Basak in his Bengali translation of the *Arthaśāstra*, Vol. II, pp. 51-52. What Kauṭilya means to say is that a royal servant getting 60 Paṇas will get in addition to his *vetana* one *Āḍhaka* of corn as *bhakta* (additional allowance; cf. Wilson's *Glossary*, s. v. *bhātā*) in corn according to the corresponding rate. The provision of *bhakta* is similar to that mentioned in Manu, VII, 126. The payment of *bhakta* in addition and in proportion to *vetana* to royal servants is well known from various other sources.

Kane moreover seems to have confused Kauṭilya's Āḍhaka with a different measurement of the same name. This will be clear from the following analysis. According to Manu (VIII, 134-37), 4 Suvarṇas (i. e. Karshas of gold) make one Pala (or Nishka) and 10 Palas one gold Dharaṇa, while 10 silver Dharaṇas make one silver Śatamāna. Manu therefore speaks of one kind of Pala (gold) which is 4 Karshas (i. e. Tolās) or 320 Ratīs in weight and two kinds of Dharaṇa, the silver

Dharaṇa weighing 32 Ratīs and the gold Dharaṇa 40 Tolās or 3200 Ratis. Yājñavalkya (I, 363-65) however speaks of two kinds of Pala, the gold Pala weighing either 4 or 5 Suvarṇas (i. e. 4 Tolās = 320 Ratīs, or 5 Tolās = 400 Ratīs, the former variety being also called Nishka) and gives the second name 'silver Pala' to the silver Śatamāna weighing 320 Ratīs. Kauṭilya (*Arthaśāstra*, chapter 40) on the other hand speaks of the Pala of gold weighing 4 Karshas (Tolās) and of the Dharaṇa of silver weighing 88 Gaura-sarshapas (nearly one Tolā) in connection with the weights of metals as well as of a Pala weighing 10 Dharaṇas used in measuring grains, etc. The heavier Pala of Kauṭilya thus seems to be about 10 Tolās in weight, although a commentator says that this Pala, called Dharaṇa-pala, is heavier by one Karsha than the usual Pala (of 4 Karshas or of 10 Dharaṇas ?). The Arthśāstra further says that the royal Droṇa weighs 200 Palas, the public Droṇa 187½ Palas, the servants' Droṇa 175 Palas and the harem Droṇa 162½ Palas, and that Droṇa, which is equal to 4 Āḍhakas or 16 Prasthas or 64 Kuḍavas, is $\frac{1}{16}$ of a Khārī, $\frac{1}{20}$ of a Kumbha and $\frac{1}{200}$ of a Vaha. The servants' Droṇa of the *Arthaśāstra* is thus about 1750 Tolās in weight and a servants' Āḍhaka about 437½ Tolās (nearly 5½ Seers). This small quantity of paddy was possibly the daily or monthly allowance of a royal servant earning 60 Paṇas a year; but it is difficult to be definite on this point. It may be noticed in this connection that the Droṇa and Āḍhaka recognised in different parts of the country were not always of the same weight. Kauṭilya's Droṇa is about ½ Maund and Khārī about 9 Maunds. These weights may be compared with those of the systems referred to by Kshīrasvāmin on Amara, Vaiśyavarga, verse 88, and by Kullūka on Manu, VII, 126. According to the first view, 4 Palas (16 Tolās according to Manu, 16 or 20 Tolās according to Yājñavalkya) or Mushṭis (handfuls) = 1 Kuḍava, 4 Kuḍavas = 1 Prastha, 4 Prasthas = 1 Aḍhaka, 8 Aḍhakas = 1 Droṇa, 2 Droṇas = 1 Sūrpa ; 1½ Sūrpas = 1 Khārī, 2 Sūrpas = 1 Goṇī or Bhāra, 4 Bhāras = 1 Vāha. According to the other scheme, 8 Mushṭis (handfuls) = 1 Kuñchi, 8 Kuñchis = 1 Pushkala, 4 Pushkalas = 1 Āḍhaka, 4 Āḍhakas = 1 Droṇa, 16 Droṇas = 1 Khārī, 20 Droṇas = 1 Kumbha, 10 Kumbhas = 1 Vāha. It will be seen that the Āḍhaka of the former system is equal to 64 Mushṭis (handfuls) or Palas (i.e. $3\frac{1}{5}$ or 4 Seers according to Manu and Yājñavalkya) and is ⅛ of the Droṇa ($25\frac{3}{5}$ or 32 Seers), while it is 256 Mushṭis and is ¼ of the Droṇa according to the latter system. Thus the Droṇa of the first system is only a half of the same denomination in the second system and none of the two tallies exactly with Kauṭilya's Droṇa.

It should also be noted that from what we know of the

prices of paddy and rice in different parts of ancient India, even 60 copper Paṇas would be far too much for '256 Mushṭis' (at the most about 20 Seeers or half a Maund according to some) of paddy. Stein has shown (*Rājataraṅgiṇī*, tran., II, pp. 308-28) how in ancient Kashmir during the rule of the Hindu kings the price of a Kashmir Khārī (177 pounds, nearly $2\frac{1}{4}$ Maunds) of paddy was 200 cowry-shells (only 36 cowries in a year of exceptional abundance) which rose in the fifteenth century to 300 cowries, how in Akbar's time the price of the same quantity of paddy was fixed at about $13\frac{1}{3}$ Dāms of copper, and how in Bengal in the 14th century 25 Delhi Rothls (about 9 or $7\frac{3}{4}$ Maunds) of rice or 80 Delhi Rothls (about $28\frac{3}{4}$ or $24\frac{7}{10}$ Maunds) of paddy were sold at a silver Dīnār. Even at the end of the 17th century, 580 pounds ($7\frac{1}{4}$ Maunds) of rice were sold at Chittagong in East Bengal for a Rupee. According to a tradition, 8 Maunds of rice were sold at a Rupee at Dacca during the viceroyalty of Shāista Khān about the same time (cf. *Ante*, Vol. VII, p. 82, note 3). An interesting article entitled "Prices of Foodstaffs in Tirhoot since the last Decade of the Eighteenth Century", published recently in the *Journal of the Bihar Research Society*, Vol. XXXVII, parts 3-4, pp. 145 ff., records the following prices of rice and paddy at Muzaffarpur in 1796 : Vasumatī rice first and second sorts at 22 Seers and 1 Maund $7\frac{1}{2}$ Seers a Ruppee ; Ushṇa rice first and second sorts at 1 Maund $11\frac{3}{4}$ Seers and 1 Maund 12 Seers a Rupee ; paddy first and second sorts at 2 Maunds 5 Seers and 2 Maunds 10 Seers a Rupee. We have also to note that 60 copper Paṇas were equivalent to $3\frac{3}{4}$ silver coins in ancient Indian currency and that the purchasing power of the copper Paṇa and silver Kārshāpaṇa was very considerably higher than even the Dām and Rūpiya of the Mughal period. Thus 60 Paṇas for half a Maund of paddy would be an utter absurdity in any period of Indian history before the twentieth century.

The Dūta of the *Arthaśāstra* (cf. chapters 16 and 127) was not an ordinary servant as understood by Kane. The passage in question has been translated by Shamasastry as follows: "A messenger of middle quality shall receive 10 Paṇas for each Yojana he travels and twice as much when he travels from 10 to 100 Yojanas." It will be seen that the *madhyama* type of Dūta mentioned here was not a regular employee of the king. The epithet *madhyama* again shows that he was not of the type of a menial servant. His was thus a temporary appoinment without salary but on the basis of a travelling allowance. Considering the facts that his food and other necessaries (conveyances, etc.) were not provided for, his travelling allowance at the rate of 10 silver coins per ten

(or even five) miles cannot be regarded as high. Moreover Kauṭilya seems to refer to the Yojana as the distance to be covered by the Dūta both while going and coming back. An illustration of the journey of a Dūta of the *madhyama* type is possibly furnished by the *Rājataraṅgīṇi*, III, 129ff,, in the story of the poet Mātṛigupta who had to travel to Kashmir as a messenger of king Vikramāditya with practically no help from the latter.

FUTURE OF NUMISMATIC STUDIES: A FEW SUGGESTIONS.

By Dr. V. S. Agrawala, Banaras Hindu University

The Numismatic Society of India, established in 1910, has promoted the study, collection, interpretation and publication of Indian coins, both ancient and medieval. The amount of work in both these branches done by scholars in India as well as outside, is reflected in the two Bibliographies prepared by Shri C. R. Singhal, Asst. Secretary of the Society, of which part I, dealing with ancient coins was published in 1950 and part II, with medieval coins is now printed off. The Society published 47 parts of the Numismatic Supplements of the *J.A.S.B.*, but is now conducting an independent *Journal* comprising about 200 pages per annum, of which 13 volumes have been published since 1938.

It is needless to point out that the contributions in the pages of the *Journal* of the Numismatic Society constitute historical material of permanent value and the *Journal* will therefore serve as a book of constant reference for all professors and students, who want to keep themselves abreast of the latest discoveries.

It is necessary to invite the special attention of University Professors and Heads of Departments of Medieval Indian History to the Numismatic Journal and other publications of the Society of which a list is given on the title. It is also imperative to invite their attention to another urgent problem in the field of Indian Numismatics. Of late it has been found that whereas the study of ancient Indian coins is attracting new scholars and progressing with increased tempo, the same cannot be said about the branch of medieval numismatics. It is our earnest desire that this branch of Indian coins also should flourish as vigorously as before. This can be done in several ways.

(i) Professors of Medieval History should themselves take active interest in this class of evidence and should send their contributions and special studies to the *Journal of the Numismatic Society*.

(ii) Special lectures on Medieval Indian coins, their importance as a source of history, richness, variety and new discoveries should be organised in each academic year as part of the History Departments' activities in the various Universities.

Just as ancient Indian coins are taught as the subject of a full-fledged paper for Ancient Indian History courses in many of the Universities, similarly the subject of Medieval coins should be taught for a separate paper in Medieval History Course. This is an important aspect of the problem and unless immediate steps are taken to introduce the subject at the post-graduate stage, I am afraid, Medieval Indian Numismatics will languish beyond redemption for want of properly trained scholars to continue such studies who would eventually take charge of the medieval coin cabinets of various museums as competant trained graduates. It is of the utmost urgency that the outstanding works of such authors as Thomas, Vincent Smith, Nelson Wright, Rodgers, Whitehead and Hodivala should be continually studied at the University and the knowledge imparted by them enlarged with each generation.

(iv) It is also necessary that subjects bearing on Medieval Indian coins should be prescribed for research to be undertaken by fellows and scholars supplicating for Ph.D and D. Litt. degrees in the Universities. It is regrettable that this aspect of the problem is not receiving adequate attention even in the case of ancient Indian coins. The degree of neglect, however, in the case of medieval coins is much greater. It cannot be conceded that all that was to be known and discovered in this branch of learning has already been achieved by previous savants and therefore nothing remains to be done by new generation of students and researchers. That will be an altogether mistaken notion. There is as yet much scope to cultivate this subject at the research level.

Apart from the factual recording of coins as regards their fabric, mints, rulers, dynasties, much still remains to be done to study the numismatic material in terms of the economic conditions governing their mintage, the weight and metrology of coins, the circumstances under which fluctuations occured as regards their denomination, alloys, exchange ratios, and frequency. A study of the major economic policies that dictated the programmes of the mint-masters with regard to currency issued by them may be expected to yield results of outstanding historical interest. Literary sources on the lines ransacked by Dr. Bhandarkar for ancient coins and Prof. Hodivala for medieval coins still remain a fruitful source of numismatic evidence. All additions to our knowledge from those sources should always be most welcome.

It is hoped that renewed interest in this branch of Indian numismatics will be taken and the study of medieval coins find its due place in the curricula of Indian universities.

SOME NEW PAPERS ON NUMISMATICS

BY P. L. GUPTA, M.A., BANARAS

[As we have pointed out earlier, now and then papers about Indian numismatics are published in Indian and foreign journals. The summaries of some of them are being given here. Readers may also draw our attention to such papers so that all important papers may be included. Editor.]

BHATTACHARYA, A. K. A rare Type of Shahjahan's Coin. In *Indo-Iranica*, Vol. IV, No. 1, p. 25-26.

A tiny silver coin of Shahjahan, weighing 16 grains and 1 cm. in size, dated 1046 A.H. is described in this paper. On its obverse is *Shāhjahān Bādshāh* and on the reverse *Zarb Akabarābād San 1046*. The author of the paper considers it to be *Nisār* that was struck in celebration of the successful expedition against Cooch Behār, whose chief was subdued in A.D. 1637. But the coin is an ordinary 1/16 silver piece of Agra mint.

BHATTACHARYA, A. K. A Qandahār Coin of Muhammad Shah; the Mughal and the later Indo-Afghan relations. In: *Proceedings of the thirteenth session (Nagpur) of the Indian History Congress*. pp 188-191.

A coin of Muhammad Shah dated in the 27th regnal year (11xx A.H.) of Qandahar mint, which is a recent acquisition of the Indian Museum, Calcutta, is discribed and illustrated. It is suggested that during the latter part of the reign of this monarch, the Afghan power was considerably on the decline and an attempt was made by the Mughal ruler to annex Qandahar to his empire, and probably successfully. The coins of this Mughal ruler of this mint of dates 27 and 30 were published earlier by H. Nelson Wright (*N.S.* XIII, art. 78; XIV, art. 88). In the latter paper he had suggested the Mint Qandahar of the coins of this ruler to be Qandahar of the Deccan in the Nander district of Hyderabad State. The author of the present paper disagrees with him and points out that the lettering of the legend on these coins shows the closest similarity to the Mughal issues of the Afghanistan mint-town. Further, Qandahar of the Deccan does not show much evidence of being a mint town.

DAS, MURARI MOHAN. A brief Study of the Coinage of Assam. In: *Journal of the Assam Research Society*, Vol. XII p. 34-40.

This is a resume of the coins of Ahom, Koch, Kachari, Jayantia, Manipur and the Nagas.

DEVISINGH, KUNWAR. *Prithvīrāj aur Muhammad Gorī kā Samyukta Sikkā* (Joint coinage of Prithviraj and Muhammad Gori). In: *Nāgarī Prachāriṇī Patrikā*, Vol. LVII, p. 59-60.

The author describes the coin 36a of Nelson Wright's *Coinage and Metrology of the Sultans of Delhi*, which has bull and the legend *Sri Muhammad Bin Sām* in Nagari Characters on one side and Horseman with the legend *Śrī Prithvīrājadeva* on the other side in Nagari letters, and explains the reason of retaining the name of Prithvīrāj on this coin of Muhammad Bin Sām. The issues of this Muslim invader in India are the copies of the Chauhan coins in the west and of the Gahadwālas in the east. So the author thinks that if he had to use the name of the local ruler on his coins to popularise his own coins, he ought to have used also the name of Jayachand on them. The author of this note explains the absence of such coins, by saying that most likely he did not like the idea, as Jayachandra had drowned himself in the Ganges after his defeat in the battle-field. On the other hand Prithvīrāj was not killed in the battle of Tarain but was simply captured. So his name was considered fit to be utilised by the conqueror. But the explanation is not convincing.

INAUGURAL ADDRESS[1]

BY HON'BLE SHRI MISHRI LAL GANGWAL,
CHIEF MINISTER, MADHYA BHARAT.

श्री आर० जी० ज्ञानी, मुद्रातत्व परिषद् के सन्माननीय सदस्य एवं समुपस्थित मुद्रा विशेषज्ञ !

अखिल भारतीय मुद्रातत्व परिषद् के इस वार्षिक अधिवेशन में एकत्र हुए विशेषज्ञों का स्वागत करते हुए मुझे अत्यन्त हर्ष होता है। यद्यपि मुद्रातत्व की सूदम बातों और उसके दुरूह अनुसन्धान आदि विषयों से मैं अनभिज्ञ हूँ, पर इतना तो अवश्य जानता हूँ कि हमारे देश की प्राचीन मुद्राएँ इतिहास की रूपरेखा के निर्माण में विशेष महत्व रखती हैं। हमारे देश के इतिहास के अनेक अंशों का निर्माण केवल मुद्राओं के आधार पर ही करना सम्भव हो सका है। शकों और पार्थियन राजाओं के समय का इतिहास इस सम्बन्ध में उल्लेखनीय है।

इसी प्रकार हमारे मध्यभारत के इतिहास में अनेक टूटी कड़ियाँ हैं। उन्हें जोड़ने में हमें इस क्षेत्र से उपलब्ध होने वाली मुद्राओं पर ही निर्भर रहना पड़ रहा है। मालव का इतिहास बहुत समय से अनिश्चित सा है और उसमें ऐसी अनेक गुत्थियां हैं जिन्हें मुद्रातत्व के शोध के बल पर ही सुलझाया जा सकता है। जिस समय देश में सर्वत्र गणतन्त्र का डंका बजता था, उस समय मालव-गण अपने पराक्रम के लिये सर्वत्र प्रसिद्ध था। उसके सम्बन्ध में विशेष बातें मुद्रातत्व द्वारा ही जानी जा सकती हैं। इसी प्रकार संभव है इस भू-भाग से कभी कोई ऐसी प्राचीन दुर्लभ मुद्रा हमारे हाथ लग जाय जिससे विक्रमादित्य के अद्यावधि विवादास्पद समय पर नवीन प्रकाश पड़ सके।

मध्यभारत की भूमि पर समय समय पर अनेक नरेशों ने शासन किया और उनकी पारस्परिक मैत्री या शत्रुभाव पार्श्ववर्ती राजाओं से रहा है। इन सब के इतिहास पर तथा अन्य विवादास्पद विषयों पर इस क्षेत्र में उपलब्ध होनेवाली मुद्राओं के सहारे ही प्रकाश डाला जा सकता है। अज, जिष्णु, रामगुप्त और हरदेव या हरिदत्त, के नाम इस प्रदेशमें मिली मुद्राओं द्वारा अभी हमें ज्ञात हुए हैं।

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(1) Delivered at the inauguration of the 42nd Annual meeting of the Numismatic Society of India held on at Gwalior 29-12-1952.

निश्चय ही ये लोग यहाँ किसी न किसी समय राज्य करते थे। इनके विषय में विशेष जानकारी अधिक संग्रह एवं अनुसन्धान के बल पर ही सम्भव है।

इस क्षेत्र में उपलब्ध असंख्य आहत (Punch-marked) और स्थानीय (local) मुद्राएँ, यूनानी, शक, पार्थव, क्षत्रप, सातवाहन, गुप्त आदि नरेशों और उनके समकालीन नाग आदि वंशों की, तथा मध्य भारत में समुन्नत अनेक अन्य राजवंशों की प्रचलित मुद्राएँ प्रादेशिक ही नहीं, अपितु भारतीय इतिहास में भी महत्व की सामग्री उपस्थित करने में समर्थ हो सकती हैं।

उज्जयिनी की आहत एवं स्थानीय मुद्राएँ तथा पवाया (पद्मावती) से मिली नाग मुद्राएं मध्य भारत की खास देन हैं। उज्जैन में यूनानी राजाओं से प्रारम्भ कर मध्य काल के अन्त तक की मुद्राएँ उपलब्ध होती हैं। प्राचीन काल में उज्जैन केवल तीर्थ ही नहीं, वाणिज्य का प्रसिद्ध क्षेत्र भी था और भारत के ही नहीं, किन्तु इसके बाहर के भूभागों से भी, इस भूमि पर आवागमन होता रहता था। इस नगर की स्थिति दक्षिण से उत्तर की ओर जानेवाले प्राचीन राज-मार्ग पर है। नाग नरेशों के सम्बन्ध में तो अभी उनके नाम के अतिरिक्त सब कुछ अनिश्चित ही है। अभी नर्मदा तट पर महेश्वर के उत्खनन में भी कुछ नई मुद्राएँ प्राप्त हुई हैं जिनसे कुछ नई इतिहास सामग्री मिलने की आशा है।

इस प्रदेश में स्थान-स्थान पर इसके पार्श्ववर्ती भूभागों की भी प्राचीन मुद्राएँ प्रचुर संख्या में उपलब्ध होती हैं, जिनके अध्ययन के बल पर हम इस क्षेत्र के इतिहास पर प्रकाश डालने के साथ ही उसका अन्य प्रदेशों के साथ पारस्परिक व्यवसाय, वाणिज्य, आवागमन, आदि का भी सम्बन्ध स्थापित कर सकते हैं।

इस राज्य में इस विषय में रुचि रखने वाले अनेक सज्जनों ने अथक परिश्रम कर अनेकानेक बहुमूल्य मुद्राओं का संग्रह भी किया है। इनमें, जहाँ तक मुझे ज्ञात है, श्री एन० आर० अडवानी, चीफ कनझरवेटर आफ फारेस्ट्स, का संग्रह सर्वाधिक महत्व का है। उसे आप महानुभावों ने यहाँ की प्रदर्शनी में देखा ही होगा। इस संग्रह के परीक्षण और प्रकाशन के लिये भरपूर प्रयत्न किया जा रहा है। आशा है कि उससे अनेक नये ऐतिहासिक तथ्य हमारे सामने आयेंगे। ऐसे ही अन्य संग्रहों का भी हमारे मध्यभारत में होना संभव है और स्वाभाविक है। उनका पता लगाकर उनके परीक्षण और प्रकाशन के

लिये भरपूर प्रयत्न करना यहाँ की सरकार अपना कर्तव्य समझती है।

मुद्रातत्व एक दुरुह शास्त्र है, इस कारण अधिक संख्या में लोगों का उसकी ओर आकर्षित न होना स्वाभाविक है। फिर भी आपका परिषद इस दिशा में प्रशंसनीय कार्य कर रहा है और उसके प्रयत्न से लोगों की इस ओर रुचि होने लगी है। आवश्यकता इस बात की है कि आप लोग इसको सरल रूप में प्रस्तुत कर जन साधारण के लिए रोचक बनायें, जिससे अधिकाधिक संख्या में लोग इसकी ओर आकृष्ट हो सकें। मध्य भारत सरकार का भी ध्यान मुद्रातत्व के विकास और प्रसार की ओर है। उसने आपकी पत्रिका का महत्व आंका है और ३००) वार्षिक सहायता देने का निश्चय किया है।

मुद्रातत्व की प्रगति के लिये समयोचित समस्याओं पर विचार करने के हेतु इस स्थल पर इतने विशेषज्ञों को देखकर मुझे संतोष होता है। मैं आशा करता हूँ कि आप सब महानुभाव इस भूमि से उपलब्ध प्राचीन मुद्राओं के समुचित अध्ययन के लिये मार्ग निदर्शन कर देश के अन्य प्राचीन स्थलों की मुद्राओं के साथ उनका यथोचित सम्बन्ध स्थापित करेंगे तथा परिषद पत्रिका के संचालक डाक्टर अल्तेकर की प्रेरणा एवं श्री ज्ञानी जी के सभापतित्व में कुछ ऐसे महत्वपूर्ण निष्कर्ष ढूँढ निकालेंगे जिनसे इस शास्त्रकी प्रगति द्वारा देश का कल्याण हो सके और यहाँ की जनता पूज्य महात्मा जी के सुखस्वप्नों को चरितार्थ करने में सफल हो।

PRESIDENTIAL ADDRESS[1]

BY SRI R. G. GYANI, M. A., BOMBAY.

Hon'ble the Chief Minister Shri Mishrilalji Gangwal, Friends and Fellow-workers,

I must at the outset express my feelings of gratefulness to you all for the honour done to me, by electing me as President for the year. I have, no doubt, been associated with the work of the Society in my own way for the last 20 years. It is possibly this association which may have been your consideration in conferring the honour on me. Conscious as I am of my limited contribution to the science of Numismatics, I am here to discharge my duty at the behest of my valued friends, who have lovingly conspired to break my long academic silence.

The science of Numismatics in India is now more than a century old, and the momentous contributions it has made to many aspects of Indian history, are well known. It has yet to play the same part as its sister branches of Epigraphy, Archæology and Art had played. The Numismatic material that has been preserved and that has come to our hands is of almost infinite variety. It is a well known fact that many Indian rulers, otherwise unknown, have found their place in the annals of Indian history solely on the basis of numismatic evidence preserved in a few rare specimens. Collection, preservation, classification, interpretation and publication of the vast numismatic material has absorbed the labour of a large number of coin collectors and scholars, who slowly but steadily laid the foundations of the edifice of this respectable science. It is a matter of gratification that owing to the accumulated result of their labour we have been able to establish the firm foundation of many-sided numismatic work in this country. Surely, on such occassion our thoughts go out in deep veneration to such veterans as James Prinsep, Alexander Cunningham, Wilson, Walsh, Durga Prasad, Whitehead, Taylor, Hodivala, Nelson Wright, Richard Burn, R. D. Banerji and J. Allan etc., of the older generation who laid the foundation of the science of Indian Numismatics by their monumental contributions and catalogues. The legacy which the aforesaid pioneer scholars have left behind must be properly looked after and

1. Delivered at the 42nd Annual Meeting of the Numismatic Society of India, held at Gwalior on 29-12-1952.

should be promoted in all possible ways, so that the knowledge available from coins could be utilised more and more. We still need the Numismatic source of Indian history to lend richness to its vast and varied pattern.

We are under great obligation to Dr. A. S. Altekar, Prof. V. V. Mirashi, and Dr. V. S. Agrawala from our contemporaries, who have not only kept up the torch of Numismatic knowledge burning, but have raised the standard of our Journal to the position of international repute by their untiring zeal in voluntarily examining public and private collections and by unraveling many a knotty problems by their intense researches through all these years. Still there are many gaps in the history of our vast land which coins alone could bridge. For instance, the history of mediæval India from 7th century, after the death of Harsha down to the end of the 12th century, is shrouded in mystery so far as the Numismatic evidence is concerned.

THE PUNCH-MARKED AND ANCIENT COIN SERIES

The ancient coinage of India known as the Punch-marked series, although staggering by its vast number, is still a sealed book. They still require a re-examination with a view to solve various problems connected with them. Their denominations, their metrology, the relation of their symbols with their provenance and the grouping of symbols in relation to different dynasties or kings, as seen from the chronological point of view, have yet to be studied. These and allied questions are calling for an answer which concentrated work alone by a band of numismatists can furnish. Similarly, metrology of ancient coin series and their weight standards are questions which seldom seem to have received adequate attention.

Our knowledge about the denominations and weight standards of the cast coins is equally meagre. This field has to be explored thoroughly and I do hope that some of our budding numismatists will take up this work. Every year fresh and unknown data of inscribed coins are being obtained. For instance, Dr. H. V. Trivedi, Deputy Director of Archæology, Madhya Bharat and the Curator of Indore Museum has recently discovered the coins of kings Brahma and Rudra, who are not known to history. What relations they bore to the ruling dynasty of Malwa or whether they were independent local rulers remains to be seen. I may also draw your attention to the coins bearing city names. Such coins from Eran, Tripuri etc., were known long before, but recently similar coins from Kauśāmbi and Banaras have come to our notice. You will hear in this session about the fresh discoveries of this class of coins bearing the city names of Bhagilā and Jeshthapur.

It is evident from such class of coins that they were not common. It remains to be seen whether these coins were issued by the ruling dynasties, or as it is more probable, by the merchant guilds. It must be ascertained whether *Nigamas* in ancient times were empowered to strike their own coins with the consent of the kings. I hope that some of you will take up this problem, and with the help of literary data, throw light on this series of interesting coins.

RECORDING OF FIND-SPOTS

The importance of recording the findspots of coins has been stressed by all numismatists, though unfortunately some of our dealers and coin collectors forget to record their provenance. Recently Dr. H.V. Trivedi has examined the Indo-Bactrian, Parthian and Śaka coins in the collection of Muni Shri Vidyavijayaji. He informs us that these coins were collected from Amreli in Saurashtra. If that is so, these coins should enable us to establish some relationship between Saurashtra and North-Western India. Whether these coins came to Saurashtra through the medium of normal trade or whether they speak of some political hegemony of Indo-Bactrians and Śakas, has to be determined. It is known from history that the Indo-Greeks, during the time of Demetrius, had penetrated as far as Broach. What happened to them in this part of the country after Menander is not known. Perhaps systematically collected coins from Gujarat and Saurashtra may throw fresh light on this problem.

IMPORTANCE OF LITERARY DATA

Dr. Agrawala, in his Presidential Address at the Nagpur session rightly stressed the importance of literary data in the science of Numismatics. Dr. Agrawala, Dr. Altekar and Prof. Chatterji have carried on important researches on the literary data on the ancient coinage. Jain literary sources were not satisfactorily tackled so far. I am happy to note that Shri Umakant Shah, a noted scholar of Jainism, has taken up this work. In a paper contributed by him, he has thrown interesting light on numismatic data in Anga-Vidyā—a work of indefinite date, which has not yet been published. The list of coins mentioned in this source is Sateraka and Khattapaka coins which are the stater of the Greeks and the Kshatrap coins. Such kind of research is bound to yield interesting results. I sincerely hope that this branch of Numismatic study will be continued by our scholars.

THE MEDIÆVAL COINAGE

Till the end of the 5th Century A.D., the coinage of Imperial Guptas presents a landmark of ordered evolution,

Its denominations, weight standard, fabric and legends are explicit and connected with the established traditions. This series is also important from the artistic point of view. We find in them perfect specimens of æsthetic beauty. However, as a sequel to the disintegration of the Gupta Power, the established mints also distintegrated with the inevitable consequence that the coinage of the North as well as of the South is thrown into confusion. We fail to trace, therefore, the well planned series of coinage covering several generations of rulers. The state of Indian coinage from the 6th to the 12th century A.D. presents a pathetic state. After the devastating raid of the Hūṇas and the adoption of the Sassanian pattern of currency, pure gold mintage became a thing of the past. Profusely alloyed silver and copper became order of the day. It is useless to seek in this period the coins of such a high value and prestige as the coins of the Kushāṇas and Guptas that preceded and of the Delhi Sultans and Mughal emperors that followed them. All the same the importance of the study of the coinage of this interventing period cannot and should not be neglected. As a matter of fact the coinage of about half a millenium after the death of Harsha presents an inexhaustible mine of information, furnishing data of great value for the economic history of the period and the fluctuating fortunes of different kings and dynasties that flourished in this age of chaos and confusion. Standard literature dealing with the coinage of this period is badly wanted. The coin hoards also, though their number is abundant, have been imperfectly recorded and still less carefully studied. Coins of many varieties and weights both in silver and copper are summarily dismissed as "Indo-Sassanian". We are not yet in a position to classify their types in accordance with their provenance. After all the question remains to be answered as to who was the controlling authority responsible for their crude mintage? What was their weight standard, whether indigenous or foreign? What were their names and exchange values and, above all, what was their metrology that could serve as an index of the economic condition of the society during those centuries? The Arabs and Indians through trade relations played a conspicuous part in that age. Indian coinage must have been linked with foreign standards extending from China to Arabia. Answers to the above questions must, therefore, be furnished by the existing coins themselves, supplementing literary references hidden in the Indian, Arabic and Chinese sources. It is verily a vast desert to traverse and some of us must gird up their loins to reach their cherished goal.

DRAVYA-PARĪKSHĀ

In this vast unknown desert, the work of Thakkura Pheru

stands out as an oasis where the seekers after knowledge could quench their thirst. Thakkura Pheru was the Mint-master of Alauddin Khilji, controlling the Delhi mint. He was a person endowed with great scholarship, practical commonsense and experience and a wonderful grasp of facts as is amply supported by the treatises left by him. His work *Dravya-Parīkshā* was found in a single manuscript comprising six scientific texts by the same author, who lived towards the end of the 13th and the beginning of the 14th century A. D. Shri Agarchand Nahta of Bikaner, who has the unique reputation of rescuing a large number of old manuscripts from the rich Jain Bhandaras in Rajasthan and elsewhere, has entrusted this manuscript for a scientific study and edition to my learned friend Dr. V.S. Agrawala, to whom I am indebted for all the information regarding the contents of this important manuscript.

This work *Dravya-Parīkshā* by Thakkura Pheru, dated V. S. 1375 (=1318 A. D.), records faithfully the coins that were being received and accepted in the Mint for conversion to new money. Detailed information is supplied herein both in verses and in tabular form regarding the names of coins, their metals, their relative exchange values and an exact analysis of the true weight of two or more metals used in the alloy. About 200 coins are dealt with in this manner beginning from the Ādivarāha *dramma* of Mihira Bhoja of the Gurjara-Pratīhāra dynasty of the 9th century to the current coins of Alauddin Khilji in the 14th century A.D. and other contemporary coins. The text mentions Sitārāmī coins minted probably for the first time by the Yādavas of Devagiri. There is reference to the coins of Kumārapāla of Tribhuvanagiri, to the coins of Abu, Devagiri and Vārāṇasī and also to the coins of Sīnghaṇa known as Singhaṇī of the Yadava dynasty and to the coins of Kuladevī, who may have been some queen of Western India. Coins of Vārāṇasī are said to have contained an alloy of gold, silver and copper and one hundred specimens of these weighed 37 tolas. The text also refers to a coin called Jaithal, which may be the same as Jital mentioned in Persian sources. There are detailed references to coins known as Ajayapuri, Bhimapuri, Arjunapuri, Bisalapuri and several others, including Varāha and Vināyaka, which are given the name of Gurjari *mudrās*. These are, therefore, obviously the coins of the Solanki kings of Gujarat. The author next mentions the coins of Malwa, like Chankaria, Dinpalpuri and coins of Nalapura and Chanderi. It is interesting to find a reference to the coins of the kings of Jalandhara or Kangra hill state such as Jaitchand, Rupachand and Trailokchand. The last portion of the text is devoted to the coins minted at Delhi, called

Dhillika-mudrā. In this context mention is also made of the coins of the kings of Tomara dynasty namely Anaṅgapāla, Madanapāla, Prithivīpāla and Chāhaḍapāla.

Thakkura Pheru gives the popular names of early Muslim coins. For instance, Sahavadani (for the coin of Shahabuddin Ghori), Mahmud Shahi, Qubaichi, Jajiri, Zakaria, Faridi-mudrā, Parasia, Alauddini, Satkas-masi, Momini, Alai-mudra, Sela Samsi, Titmisi (for the coin of Iltutmash), Kuwatkhani, Khilafati, Sikandari, Rukuni, Pirojshahi, Moizi (for a coin of Moizuddin), of which two varieties are mentioned, Varanavaka and Pataka, Balbani (for a coin of Balban) Uchchai, Multani (for coins from Multan) and Jalali etc. These are stated as names of silver coins known to the author. There is also a reference to copper coins known as Igani, Dugani etc. All these must be identified with the known types of the Sultans of Delhi and their contemporaries.

These coins are known to the students of Muslim Numismatics, but they are for the first time recorded by Thakkura Pheru who gives the weight of 100 silver coins of each type or class mentioned above in a tabular form. For example, a hundred Uchchai Multani coins contained only 9 *māshās* of silver and their exchange ratio for one Alai silver *ṭaṅka* was 130. The rest of the weight of 100 coins of this class was made up of an alloy of copper. This is evidently a reference to the billon coins known to us. This information is clearly given by the author as of general application to all coins dealt with by him. To take a better known coin namely Titi-misi (of Iltutmish) 100 coins contained only 3 tolas of silver. For a Tanka of Alauddin the exchange ratio was 34. Thakkura Pheru's long tabular statements are expected to be of inestimable value for determining the metrology and allied problems of mediæval coins. Publication of such valuable work is an urgent necessity. Dr. Agrawala assures me that he will be able to prepare his commentary on this difficult work in Apabhramsha language available to scholars by the middle of the next year. I am sure that this entire work, when available in English version, with a commentary from the pen of a scholar of Dr. Agrawala's eminence, will serve as a valuable reference work for research workers in the fields of Mediæval Numismatics.

THE KALĀ BHAVAN MANUSCRIPT

Another attempt at the study of Indian coins seems to have been made in a manuscript called *Tazkirāt-u-Sukuk* being a part of *Tārikh-e-Benazīr*. This manuscript was noticed by me sometime back among the manuscripts of the Bharat Kalā Bhavan, the Museum at Banaras. This book originally belonged to the

Maharshi Kumar library of Munishwar Sharma at Banaras. This Munishwar Sharma is styled as the Manager of the Desh Uddharak journal and the Proprietor Veda Pracharak and the Manager of the Maharshi Kumar Saraswati Bhandar. It was supposed to have been printed at the Chashmai Faiz Press of *Mai Sewan* Street, Amritsar in 16 pages. The Editor thanks Pandit Vijayanand Sharma, son of Pandit Raghuvir Tiwari, resident of Bhadaini—Banaras, who presented this manuscript to the Maharshi Kumar Library and permitted it to be published.

I do not know whether this small treatise was ever published. But it establishes one thing that in the 19th century, much before our pioneers took up a scientific study of Indian coins, an attempt was made by an Indian journalist to record the history of coinage in this country.

From the scientific point of view there is nothing much to augment our existing knowledge of Indian Numismatics, but it certainly gives us an idea of the existing state of Numismatic knowledge then available. This manuscript mentions the names of legendary kings and then imaginary coins which according to the author bore the name of the ruler on the obverse. With the advent of Muslim rulers in India the coins were supposed to have assumed the circular shape. The book gives a survey of the coinage from Subuktagin down to the last ruler of the Mughal dynasty, supplemented by the Sikh coins of Guru Govind Singh.

Legends on very few of the coins agree with the legends appearing on existing coins. Evidently, the author's imagination has played much part in preparing the corpus.

LARI—THE COASTAL CURRENCY

I am inclined at this juncture to invite your attention to a class of coins about which very little attention has been paid by the students of Indian Numismatics. I mean the study of mediæval currency, specially designed and circulated mostly in the coastal area of Asiatic countries known by the popular name of Lari. It is a wire coin supposed to have originated from Lar, the capital of Laristan. This city was once the residence of learned persons, from whom were once recruited men for big offices in India by the Mughals in the north and Adil Shahis and their contemporaries in the south.

Some European travellers in the 16th, 17th and 18th centuries designate those coins as laryn, but it is correct to call it Lari,—a coin that originated from Lar. Ferishta has also used Lari in the same context. The Laris themselves

bear the same inscription. For instance, the Lari that was minted at Lar is called *Haza Lari Dharbi Lar*. The Lari struck at Dabul—a seaport on the western coast of India—under the Adil Shahi kings of Bijapur, we find *Haza lari Dabuli* (incorrectly read a *Lari Dangi* by Geo. P. Taylor) on the reverse, with the name of the Sultan Ali Adil Shah on the obverse.

It can thus be seen that Lari was the standard currency of the coasts of Indian Ocean, the Arabian Sea and the Persian Gulf right from the 16th to the 19th century of the Christian era. Some numismatists have considered Lari and fish hook money as synonymous, but as a matter of fact they are two different types of wire currency. A silver wire doubled and twisted into the shape of fish hook money seems to have been current only in Ceylon, while the Lari was a flattened wire of about 1/8th inch in thickness and of about 2 to 4 inches in length doubled and stamped on both or one side with the name of the mint, the king's name or the Kalima and so forth, and was current throughout the coastal area in India, Persia and Arabia. Lari is sometimes confused with the Arabic *Tawilah*, meaning the Long Coin. As a matter of fact Tawilah was a copper wire money issued in the province of Hasa in Arabia and called by the Arabic name *Tawilah*. Tawilah was evidently an older currency than Lari and its use and circulation was restricted mostly to Arabia only, just as the fish hook money was restricted to Ceylon. The Lari, however, found its way throughout the coastal area in Asia. Moreover, Tawilah generally bears illegible legends without the names of mints, the kings or dates. It was, therefore, current only in its homeland. From this fact perhaps originated the Arabic proverb '*Le Tawilat-il-Hasa*"—Like a long bit of Hasa which is applied to a person who can be of use only at home and has no value outside. It has been as a matter of fact the currency of Carmathians who reached the height of their power in the 3rd Century of the Hijri era i.e., about the 9th or 10th Century A.D.

Some of the Tawilahs have been noticed as having an inscription in the Kufic characters, which is almost illegible. On some of the coins, scholars have attempted to read the name of Kalifs and the words *Al Tawilah*. It seems, therefore, probable that the Persian traders from Lar may have brought some Tawilahs from Arabia and adopted them for their own use in trade with other countries. As Lari happened to be of pure silver, it was accepted by every country in exchange of their currency. The European travellers like Palgrave, Pedro and Tavernier, have spoken very highly of them and have calculated that the exchange of their coins with Laris

gave almost 14% profit. The earliest description and value of Lari is given in *Lembrances des Cousas India*, where a table shows that 2 fulus (copper Paisa) made 1 Dinar and 12 Dinars went for 1 Tanga of the Portuguese. 3 Tangas and 9 Dinars were required to purchase a Lari. Antonio Nunes (1554 A.D.) tells us that at the fort of Bangala 80 cowries are equal to 1 Pone and 48 Pones were equal to a Lari, which weighed from 64 to 74 grains. It can be valued at about ten to twelve annas of our times.

Though Lari originated from Lar in Persia or from Hasa in Arabia, it became, on account of its purity of silver, an easy medium of exchange—a standard currency of the coast for the purposes of international commerce. Apart from the facilities of exchange in trade that the Laris provided, the travellers could also conceal them in the folds of the turbans or waist cloth or broad belts or sewn inside an under garment in case of trouble in certain regions, where there was a danger from pirates. The facilities and convenience of transit made Lari a popular currency.

We find a mention of the Lari not only in the accounts of the Portuguese, Dutch and English travellers, who visited the Asian countries, but also in the accounts of the early Muslim traders, it was a recognised coin as known from the records of the Adil Shahis and Maratha rulers.

Laris of Persia, Hormuz and Lar or Basra and Dabul on the Western Coast of India as well as those that were struck in Ceylon, Maldives and other places have come to light and have been studied by scholars. Due to the fragmentary legends on the prongs of Laris, it is extremely difficult to get a satisfactory reading. Decipherment of different legends on the coins of various places is rather a tough job. Largest hoard of these coins was found at Gampola, a village in central part of Ceylon, consisting of about a thousand Laris, out of which 819 Laris and 114 coins were rescued by the American intermediaries and taken to America where the late Mr. Howland Wood studied them and prepared a report on them in a monograph entitled "The Gampola Larin Hoard", which was published by American Nnmismatic Society at New York in 1936. This report reveals that Lari had been in use in Ceylon for a pretty long time. Apart from the regular mintage of Laris in Arabia and Persia there are noticed impressions of coin-dies in Devanagari characters of the Singhalese Sovereigns of the 13th Century A.D., such as those of Śahasamalla, Dharmāśoka, Līlāvatī, Parākrama-Bāhū, Vijaya-Bāhū, Bhuvanaka-Bāhū etc. There are some Laris struck from the coin dies of the Portuguese and Dutch also. It is really a very interesting study. Of the stray finds in the

Ratnagiri district on the Western Coast, the largest find was that of 359 Larins unearthed in a field in Kandivli of Dapoli Taluka of the district of Ratnagiri. This hoard is at present in the Prince of Wales Museum, Bombay. It has been examined, classified and identified. A report on this find is almost ready and is expected to be published soon. The report of this assorted collection of Laris will reveal how Arabia, Persia and India had combined in having a common currency recognised by the commercial community as a legal tender for centuries, irrespective of the different authorities on the mainland whose coins were current in the interior. The coastal currency of Lari held its own sway on an international basis for cosiderably long time.

NEW FINDS AND RESEARCHES

Shri M. M. Nagar, Curator, State Museum, Lucknow, reports that a hoard of 329 silver punch-marked coins, said to have originated from village Aunrhihar in Ghazipur district, was purchased for the Museum. These coins are very rare and are the only ones of their type so far known. They present certain new symbols so far not met with on silver punch-marked coins. One of these symbols is a vase placed between two laddles. Another symbol—the bow and arrow—so far found only on the Andhra coins from South India, may also be said to be a new symbol. The weight of the coins is 32 *rattis* and their slight cup-shape is another new feature of interest.

A hoard of 29 gold coins originating from the village Kusumbi, P. S. Ajgain, District Unnao, was presented to the State Museum, Lucknow, by the Government of the Uttar Pradesh. The hoard comprises issues of the three Imperial Kings of the Gupta Dynasty, who ruled over Āryāvarta from 320 A.D. to 500 A.D. Of the 29 coins, 3 belong to Samudragupta, 19 to Chandragupta II and 7 to Kumāragupta I. The coins are important as most of them present new features.

A Gold coin of Chandragupta II, Horseman type. *Reverse* Lakshmi standing is a new variety and is so far unknown.

A Gold coin of Chandragupta II, Lion-slayer type. *Reverse*—Goddess riding a walking lion is also a new variety.

A Gold coin of Chandragupta II Vikrameditya, *Chhatra* type, King and dwarf holding *Chhatra* portrayed differently, is again a new variety.

A Gold coin of Vīrasiṁhadeva, originated from a village in Faizabad district as treasure trove, has been presented to the Lucknow Museum by the U. P. Government. Coins of Vīrasiṁhadeva—a king of Eastern Chedi or Mahākośala—

are so far unknown. It has on the obverse Rampant lion and on the reverse legend in Nāgarī of 12th century A.D.

From Baroda comes the news of the acquisition of some rare coins including the punch-marked coins, silver and copper *māshakas*, the tribal coins of Mālwā, bearing the name of Jishṇu with a trident and a wheel on the reverse. The Keeper of Art and Historical records of this Museum, Shri B. L. Mankad has communicated his readings of some Valabhi coins giving some new legends on this class of coins, which has been baffling the numismatists so far. There is still a very large scope for research in this class of coins.

Dr. H. V. Trivedi of the Indore Museum has also been doing a lot of reasearch in numismatics. He has summitted reports of his examination of three valuable collections in Madhya Bharat. One of these is the collection of coins recently acquired by the College at Dewas which contains, among others 14 gold coins including a Yādava Padmaṭanka and 3 Kaḷachuri coins. It also contains rare types of Sātavahana coins worth publishing. Another collection, he has examined, is that of Muni Vidya Vijayaji at Shivapuri. It consists of Indo-Greek and Indo-Scythian, Parthian and Kushāṇ coins. The kings and types represented in the collection open a new vista of enquiry inasmuch as such types were not found in Gujarat and Saurashtra. These coins were acquired by Muniji while at Amreli. The importance of collection must be considerably great, if they were really of local finds. But if they were brought by the refugees from Sindh and Punjab, there would be nothing to wonder about. He has has also noted some new types of Kshatrapa coins. A third and laudable attempt of Dr. Trivedi is that of his study of some rare and noteworthy types of Mālwā coins about which he has contributed a paper for this session. Study of coins on regional basis is very desirable.

Shri Umakant P. Shah from Baroda has supplemented the information about Numismatics from Jain literary sources by his latest contribution on "Data from early Jaina literature," wherein the contemporary nomenclatures of coins current in ancient India are discussed.

While we consider the discoveries in Bombay our attention is drawn to the fresh find of Gupta coins from Kumarkhan in Viramgaon Taluka (Ahmedabad District), sent for examination by Dr, P.M. Joshi. The find is particularly important inasmuch as it is the first discovery of gold coins of the Imperial Guptas in Gujarat. It consists of 3 of Samudragupta (2 Kācha type and 1 Battle-axe type) and 6 of Chandragupta II, all Archer type, totalling 9 in all.

In the field of Muslim numismatics, also some stray discoveries of unique coins are reported. A Nisar of Shah Shuja dated Ahd-1068 struck at Akbarnagar (identified as Rajmahal —the Provincial Capital of Bengal) is a rarity. Similarly a unique copper coin of Muhammad Shah from Khambayat mint was noticed with Shri S.M. Shukla. He has also been fortunate enough to acquire a silver coin of Aurangzeb dated 13-1078 from Islamnagar—a new mint which is identified as Nawanagar in Saurashtra. Mr. C.R. Singhal has contributed notes on all these three coins.

Thus more fresh light is being shed on history through these tiny records for the study of which we are all devoting our energies. Study of the coinage of Indian states has become all the more necessary in as much as with the merger of Indian states in the Indian Union the state treasures are being absorbed by the provincial authorities. Though of a very late date, these issues are fast becoming a thing of the past and unless some scholars take up the study of these coins seriously we are likely to loose the material and the future numismatist will blame us for our negligence to record the available data which is fast disappearing.

With these observations, I look forward to the discussion of new material which your researches may have brought to light during the course of the year.

NUMISMATIC SOCIETY OF INDIA,

PROCEEDINGS OF THE 42ND ANNUAL MEETING, 1952.

The 42nd annual meeting of the Numismatic Society of India was held at Gwalior on the 29th, 30th and 31st of December, 1952.

The inaugural meeting was held at 9 A.M. on the 29th of December, 1952. Hon. Mishrilal Gangwal, Chief Minister, Madhyabharat, inaugurated the meeting. At the end of his speech (printed elsewhere in this number), he announced the decision of the Madhyabharat Government to grant a recurring annual grant of Rs. three hundred to the Society as a subsidy to its Journal.

Sri. R. G. Gyani then read his Presidential Address, which is printed elsewhere in this number.

In the meetings, which held in the afternoon of the 29th and the morning of the 30th December, the following papers were read and discussed.

1.	Dr. H. V. Trivedi	A portrait silver coin of Vāsishṭhīputra Pulumavi.
2.	Dr. A. S. Altekar	Coins of Jyeshṭhapur, the capital of the Sibis(?)
3.	Dr. A. S. Altekar	Twelve forged Kushāṇa Coins.
4.	Prof. V. V. Mirashi	Identification of the king Sātavāhana of coins.
5.	Dr. S. L. Katare	Hitherto unknown coins of the city of Bhāgila.
6.	Dr. M. G. Dikshit	Gold Coins of the Śilāhāras of Kolhapur.
7.	Dr. V. S. Agrawala	A New type of Śāṇa coins.
8.	Mr. P. L. Gupta	Metrology of the Coins of the Gupta dynasty.
9.	Dr. D. C. Sarcar	Recent Finds of Ganga Fanams.
10.	Miss Padma Altekar	A new Type of Vāsisṭhiputra's Coin.
11.	" " "	Numismatic Evidence on the duration of Huvishka's reign.
12.	C.R. Singhal	Some Unique Mughal Coins in the P. W. Museum.
13.	" " "	A Unique gold coin of the Nabobs of Cudappah.
14.	Dr. J. N. Banerji	Coins of the Śibi Republic.

15.	Mr. M. M. Nagar	Kusumbi (Unao) Hoard of Gupta Gold coins.
16.	,, ,, ,,	Ghazipur Hoard of Punch-marked coins.
17.	Mr. K.D. Bajpeyi	A Coin of Dāmagupta.
18.	,, ,, ,,	New Pāñchāla Coins.

(Papers Nos. 1-13 are being published in this number; the rest will be published later).

The Business meeting of the Society was held on 31st December at 2.30 P.M. when following members were present :—

1. Shri R. G. Gyani (President)
2. Dr. Moti Chandra (Secretary)
3. Shri C. R. Singhal (Asstt. Secretary & Treasurer)
4. Dr. V. S. Agrawala
5. Dr. C. C. Dasgupta
6. Shri N. R. Advani
7. Shri M. M. Nagar
8. Shri S. C. Kala

Resolution No. 1.

Resolved that the Society places on record its deep regret at the sad demise of our members Shri S. K. Banerji of Lucknow, Shri R. M. Natu of Poona and E. H. C. Walsh of London.

Moved from the Chair and unanimously adopted by standing in silence for a minute.

Resolution No. 2.

The audited statement of accounts of the Society for the year 1952 as presented by the Treasurer were passed. (The statements are being published elsewhere in this number.)

Resolution No. 3.

In view of the pending publications, it was resolved that a sum upto Rs. 3000/- may be transferred every year from the General Fund to the Publication Fund of the Society, whenever possible.

Resolution No. 4.

Resolved that Dr. P. M. Joshi and Shri S. C. Kala be nominated to represent the Numismatic Society of India at the International Numismatic Congress to be held at Paris from 6th to 11th July 1953, without involving the Society to any expenses.

Resolution No. 5.

Resolved that as recommended by the Awards Committee, the Nelson Wright silver medal for 1952 be awarded to Shri P. L. Gupta of Banaras.

Resolution No. 6

Resolved that the award of Prize Essay be resumed and that the following subjects be notified to the Universities, Museums and members of the Society :—

(1) Weight Standards of Tribal Coins.

(2) Numismatic data in the Persian and Arabic literary sources of the Mediaeval period (*cir.* 1000 A. D. to 1856 A. D.).

(3) Metrology and the sources of the supply of metal for coins of the Muslim period from 1000 to 1526 A. D.

Resolution No. 7

Resolved that an Ad-hoc Committee consisting of the following members be appointed to consider the preparation of a monograph on the Coinage of Madhya Bharat :—

(1) Dr. V. S. Agrawala, (2) Dr. H. V. Trivedi of Indore (3) Shri P. L. Gupta, (4) Shri H. V. Advani of Indore and (5) Dr. A. S. Altekar. This Committee be requested to submit the manuscript to the Society for publication.

Resolution No. 8

Resolved that a monograph on Thakkur Pheru's "Dravya Parīkshā" be published by the Society and that Dr. V. S. Agrawala be requested to take up the work.

Resolution No. 9

Resolved that the grateful thanks of the Society be conveyed to the Government of Madhya Bharat for the sanction of a recurring grant of Rs. 300/- to the Society :—

Resolution No. 10

Resolved that the Society expresses its most grateful thanks to Dr. A. S. Altekar for the trouble he has been taking in editing the Journal and maintaining its high standard. The Society will appreciate if it is possible to make arrangements for mono or lino type for the printing of our Journal with a view to improve its get up.

Resolution No. 11

Resolved that the grateful thanks of the Society be conveyed to the Government of Madhya Bharat for inviting the annual session at Gwalior and giving all facilities for the

deliberations of the Society and to the Reception Committee for making the stay of our members at Gwalior comfortable during the Session.

Resolution No. 12.

Resolved that the Managing Committee of the Society for the year 1953 be constituted as under :—

Chairman :	Dr. A. S. Altekar	upto 1954
Asst. Secy. & Treasurer :	Shri C. R. Singhal	,, ,,
President :	Dr. Moti Chandra	
Hon. Secretary :	Shri R. G. Gyani	
Other Members :	1. Dr. V.S. Agrawala, Banaras,	
	2. Shri N. R. Advani, Indore.	
	3. Dr. C.C. Dasgupta, Calcutta.	
	4. Shri P. L. Gupta, Banaras.	
	6. Dr. J. N. Banerji, Calcutta.	
	6. Shri S.P. Shrivastava, Jaipur.	

THE NUMISMATIC SOCIETY

Income and Expenditure account

EXPENDITURE		Rs.	As.	Ps.
To Printing and Stationery ...		3,100	9	3
,, Postage and Telegram ...		295	3	3
,, Contribution Charges ...		542	8	0
,, Office Expenses of the Treasurer ...		544	0	0
,, Office expenses of the Editor		731	0	0
,, Bank Charges ...		4	12	0
,, Sundry Expenses ...		211	15	0
,, Transferred to Special Publication Fund ...		1,000	0	0
,, Excess of Income over Expenditure during the year		2,507	0	9
		8,937	0	3

Bombay, dated 24th December 1952.

DINUBHAI & CO.,
Chartered Accountants,
Hon. Auditors.

OF INDIA.

for the year ending 30th November, 1952.

INCOME				Rs.	As.	Ps.
By Sale of Journals ...				1,068	11	0
„ *Subscriptions* :—						
Arrears ...	302	5	0			
Currents ...	1,027	13	3			
Patron ...	500	0	0			
Advance ...	81	4	0	1,911	6	3
„ Interest ...				57	3	0
„ *Government Grants* :—						
Madhya Pradesh for 1951-52	300	0	0			
Madras for 1951-52 ...	300	0	0			
Assam for 1951-52 ...	300	0	0			
Orissa for 1951-52 ...	300	0	0			
Hyderabad for 1951-52 ...	199	12	0			
Bihar for 1951-52 ...	300	0	0			
Punjab for 1951-52 ...	300	0	0			
Bombay for 1951-52 ...	300	0	0			
Madhya Pradesh for 1952-53	300	0	0			
Hyderabad for 1952-53 ...	100	0	0			
Bombay for 1952-53 ...	300	0	0			
Punjab for 1952-53 ...	300	0	0			
West Bengal for 1952-53	300	0	0			
Orissa for 1952-53 ...	300	0	0	3,899	12	0
„ *Donations*:—						
Dorab Tata Trust ...	1,000	0	0			
N. M. Wadia Charities ...	1,000	0	0	2,000	0	0
				8,937	0	3

THE NUMISMATIC SOCIETY

Balance Sheet as at

FUNDS & LIABILITIES	Rs. As. Ps.	Rs. As. Ps.
General Fund :—		
Balance as on 1-12-1951.	11,039 1 0	
Add :—Excess of income over expenditure during the year ...	2,507 0 9	
		13,546 1 9
Special Publication Fund :—		
Balance as on 1-12-1951 ...	8,842 15 3	
Addition during the year ...	1,000 0 0	
	9,842 15 3	
Less :—Amount paid for special publications ...	2,500 0 0	
		7,342 15 3
		20,889 1 0

We have examined the above Balance Sheet and the annexed Income and Expenditure Account for the year ending 30th November 1952 of the Numismatic Society of India with books and vouchers and beg to report that we have obtained all the information and explanations we have required and in our opinion, the above Balance Sheet exhibits a true and correct view of the state of affairs of the Society according to the information and explanations given to us and as shown by the books of the Society.

BOMBAY,
Dated 24th December, 1952.

DINUBHAI & Co.,
Chartered Accountants,
Hon. Auditors.

OF INDIA.

30th November, 1952.

PROPERTY & ASSETS	Rs.	As.	Ps.	Rs.	As.	Ps.
Chakra Vikram Medal Accounts				720	8	0
Furniture				100	0	0
Cash and other Balance :—						
National Savings Certificates :–						
Maturing on 1-4-1958 ...	2,000	0	0			
,, ,, 2-7-1958 ...	1,000	0	0			
,, ,, 25-4-1959 ...	3,000	0	0			
,, ,, 28-2-1960 ...	4,000	0	0			
Central Bank of India Ltd., H. S. Account ...	5,021	1	1			
Bank of India Ltd., Current a/c.	4,809	15	11			
Cash in hand ...	237	8	0	20,068	9	0
	20,889	1	0	20,889	1	0

THE NUMISMATIC SOCIETY OF INDIA.

List of Members upto 31st December, 1952.

Patron :

H. H. The Maharajadhiraja Maharana Sri Bhupalsinghji Bahadur, G.C.S.I., Maharana of Udaipur (Mewar).
H. H. Col. Sri Brijendra Singhji Bahadur Bahadurjung, Maharaja of Bharatpur.
H. H. Major Maharana Shri Raj Mayuradhwaja Singh, Maharaja Saheb of Dhrangadhra.
Seth Sohanlal Doogar, Jaipur.

Life Members :

Altekar, Dr. A. S., M.A., D.Litt.; Patna University, Ranighat, Patna—6.
Bishnu Narain Kapoor, Jewellers, 83 Chouk, Lucknow.
Curtis, James W., Col., Numismatist, 515 East Capital Avenue, Springfield, Illinois, U.S.A.
Dongre, R.V., 384, Lamington Road, Bombay 4.
Govel, K.C., B.Sc., Executive Engineer, 33/60, New Rohtak Road, Karol Bagh, New Delhi—5.
Khwaja Muhammad Ahmad, M.A., LL.B., Hyderabad Museum, Hyderabad, Deccan.
Klug Walter, 2668-North 29th Street, Milwauke, 10, Wisconsin, U.S.A.
Law, B.C., Dr., M.A., Ph.D., 43 Kailas Bose Street Calcutta.
Lochan, G., 63 College Ghat Road, P. O. Botanical Garden, Howrah.
Mehta, Pratapray G., C/o. Jaipur Metal Industries, Jaipur.
Muhammed Abdul Wali Khan, Keeper of Coins, Hyderabad Museum, Hyderabad Dn.
Nahar, B,S., B.A. 48, Indian Mirror Street, Calcutta.
Patel, I.B., B.A. LL.B., Sarsa Via Anand, W. Rly.
Poddar H.P., 34 Raja Santosh Road, Alipore, Calcutta 27.
Powills, Michæl A., 9545, South Leavitt Street, Chicago 43, Illinois (U.S.A.).
Raghubir Singh, Major, M.K., Raghubir Niwas, Sitaman (C.I.).
Seksaria, Radheshyam Makhanlal, Seksaria Chambers, 139, Medows Street, Bombay 1.
Shukla, S.M., Manager, Rawal Tiles and Marble factories, Arthur Bunder, Colaba, Bombay.
Shitholey, B. S., C/o Dr. R. V. Shitholey, 1096 Kunjbihari Building, Lalbagh Circus, Lucknow.

Original Members.

Whitehead, R.B., I.C.S., F.R.A.S B., Millington Road, Cambridge, England.

Honorary Members.

1952 Prayag Dayal, 80, Gautam Budha Marg, Lucknow.

Ordinary Members.

1922 Acharya, G.V., B A., Harsha Sadan, Ganesh Falia, Junagadh.
1950 Advani, N.R., Chief Conservator of forests, Madhya-Bharat, Indore.
1950 Adams, E.G.P., Lt. Col., Wincheombe, Kaliahatti, P.O. Nilgiris, (S.I.).
1948 Agarwala, B.R., Registrar, 191, Dr. Baij Nath Road, T.G. Civil Lines, Lucknow.
1946 Agrawala, V.S., Dr., Hindu University, Banaras 5.
1949 Agrawal, Baldeo Prasad, Thatheri Bazar, Banaras.
1952 Agrawal, Jagan Nath, 360, Rai-Nak Bazar, Jullundur City.
1952 Amar.Nath, P K., 123 Chetty Street, Pondicherry.
1937 Antani, V.R., M.A., Holy Lodge, Takko Hill, Simla.
1952 Bajpai, K.D.,-Archæological Officer, Aryanagar, Lucknow (U. P.).
1913 Bandorawala, Cooverjee Nowrojee, B. A., Patuck's Bangalow, Opposite Minerva Cinema, 91, Lamington Road, Tardeo, Bombay.
1947 Banerjee, A.C., National Museum, New Delhi.
1930 Banerjee, J. N., Dr., M. A., Lecturer, Calcutta University, 28, Manoharpukur Road, Kalighat P. O., Calcutta.
1941 Baron, B. K., Bar-at-Law, "Wisteria", Mussoorie.
1951 Bardwaj, Chamanlal, C/o L. Barkat Ram Saraf, 24B, Pusa Road, Karol Bagh, New Delhi.
1934 Biddulph, C. H. Major, I. E., 51 Ellerton Road, Wardsworth Commoner, London S. W. 18
1950 Blackwell, B. H. Ltd., 48-51, Broad Street, Oxford, England.
1911 Botham, The Honable Mr. A. W., C. S. I., I. C. S., The Manor House, Alford, Lincolnshire.
1950 Chhabra, B. Ch., Dr., Government Epigraphist for India, Ootacumund. S. I.
1934 Chatterji, C. D., Reader, Lucknow University, Lucknow.
1945 Chinmulgund, P. J., I. C. S., Registrar of Cooperative Societies, Central Offices, Poona.
1944 Coachman, K. R, 16 Cowasji Patel Street, Bombay. 1.

1942 Contractor, K. N , LL. B., C/o B. O. A. C., Speedbird House, Airport, Karachi.

1915 Contractor, Sorabshaw C., Umrigar Building, Ormiston Road, Apollo Reclamation, Bombay.

1934 Dar, Mukat Bihari Lal, B. Sc., LL. B., Administrative Member, Delhi State Electric Board, Central Power House, 6, Rajghat, New Delhi.

1931 Darbar Shreewala Bhaya Nathu, Talukdar of Bhayawadar, Jetpur. (Saurashtra).

1934 Darbari, M. D., B. Com., F. S. A. A. R. A., 8, Old Post Office Street, Calcutta.

1950 Dasgupta, C. C., Dr., 5/18A, Sevak Vaidya Street, P. O. Rashbihari Ave., Calcutta 29.

1952 Deb, A. K., 25 Shampookar Street, Calcutta 4

1947 Deshpande, M. N., Asst. Supdt., A. S., W. Circle, Poona 5.

1950 Devi Singh, P. O. Mandawa (Shekhawati), Rajasthan.

1950 Dikshit, M. G., Dr., Lecturer in Archæology, Saugar University, P. O. Saugar, M. P.

1935 Driver, Dorab Cursetji, M. A. (Cantab), Bar-at-Law, C/o Messrs Mackneill & Barry Ltd., 2, Fairlie Place, Calcutta 1.

1950 Dutt, Amar Nath, 52, Maharaja Ranjit Singh Road, New Delhi.

1952 Eisenberg, Jerome M., Royal Coin Compay, 60w, 46th St., New York 36.

1951 Erickson, P. A., Numismatist, Ontonagon, 311 Minvestoa Ave, Michigan, U. S. A.

1950 Forrest, C. S., 88:66, 257 Street, Floral Park, New York.

1937 Gadra, A. S., M. A., Archæological Department, Baroda

1944 Ganda Singh, Prof., Director of Archives, Patiala.

1920 Ghanshyam Das, Rai Bahadur, Commissioner (Retd), Ghazipur (U. P.)

1929 Ghosh, A , M. A., 42, Shambazar Street, Calcutta.

1928 Ghoshal, D. D., Retd. Superintendent, Calcutta Improvement Trust, 85, Tantipara Lane, P.O. Santragachi, Howrah.

1950 Goghari, N. W., Executive Engineer, Irrigation Project No. 2, Junagadh.

1940 Gupta, Parmeshwari Lal, M.A., 63/42, Victoria Park (north), Banaras 1.

1933 Gyani, R G., M. A., Curator, Prince of Wales Museum, Bombay.

1930 Hon'ble Mr. Justice Harish Chandra, I. C. S., 12 Hamilton Road, George Town, Allahabad.

1950 Hamilton, D. C., C/o. Messrs Killick Nixon & Co. Ltd., Karachi, Pakistan.

1950 Haskel, J. F., Times of India Prees, Bombay.
1950 Holst, Hans, Dr., Lecturer, Oslo University; Oslo, Norway.
1926 Heras, H., Rev., Father, Professor of Indian History, St. Xavier's College, Cruickshank Road, Bombay 2.
1944 Hurmuz Kaus, 93 Public Garden Rd., Hyderabad (Dn.).
1951 Indar Kumar Singh, Post Babai, Hoshangabad dist. M.P.
1950 Javeri, G. L., 108 Javeri Bazar, Bombay 2.
1923 Jalan, Radha Krishna, Dewan Bahadur, Quila House, Patna City.
1939 Joshi, P. M., M. A., Ph. D., Director of Archives, Record Office, Secretariat, Bombay—1.
1953 Kala, S. C., Curator, Allahabad Museum, Allahabad.
1946 Kar, R. C., M. A., Asstt. Supdt., Arch. Survey, Central Circle, Patna.
1950 Katre, S. L., Dr., Head of the History Deptt., Mahakoshal Mahavidyalaya, Jabalpore, M. P.
1944 Khareghat, R. M., Bt. Col., I. M. S., Civil Surgeon, Khatau Mansion, Oomer Park, Warden Road, Bombay.
1952 Klaasesz, Paul F., Counsellor at Law, 400 M & T Building, Buffalo 2, New York.
1948 Kraus, Earnst, Suite 1702, 444 Madison Ave, New York 22, N. Y., U. S. A.
1950 Krishan Deva, Archæological Supdt., Central Circle, Patna 4.
1948 Kukuranov, L. N., C/o The American Express Co., 240 Hornby Road, Bombay.
1944 Kummer, F. E., Manager, West End Watch Co., Bombay.
1947 Majumdar, R. C., Dr., 4 Bipin Pal Road. Calcutta 26.
1947 Marshall, D. N, 118 Military Square, Port, Bombay.
1950 Maurer, W. H., 372 Maryland Ave, N. E., Washington, 2, D. C, U. S. A.
1952 Mehta, S. D., C/o. Messrs. Rathor Mehta & Co., 381, Hornby Road, 2nd Floor, Bombay.
1936 Mirashi, V. V., Mahamahopadhyaya, Vishnusadan, Dharampeth, Nagpur.
1949 Mirza, Dr. Hormazdyar, Dastur, K., Mirza St., Udvada (B. B. Rly)
1951 Michael, L., Sub-Registrar, P. O. Purwa, (Distt. Unao, U. P.)
1952 Mitra, Mrs. Debala, 75/2B, Manohorpukur Road, Calcutta 29.
1952 Mitra, S. K., 1/1A Williams Lane, Calcutta 9.
1937 Moti Chandra, Dr., M.A., Ph.D., Prince of Wales Museum, Bombay.
1950 Lahiri, A.N., 815 Barrackpore Trunk Road, Cossipore, Calcutta 2.

1991 Lima, S.F., Ruado Cais de Santarem, 24SL, Lisbon, (Portugal).

1953 Nagar, M.M:, Curator, State Museum, Lucknow.

1948 Narain, Prof., A.K., M.A., College of Indology, Hindu University, Banaras.

1949 Nath, Bipin Behari, M.A., Curator, Orissa Museum, Bhubhaneshwar, Orissa.

1948 Pande, Dr. R.B., Banaras Hindu University, Banaras 5.

1952 Panish, Charles K., William Street, Norwalk, Couneoticut, U.S.A.

1952 Patel, M.D., 134 Churchgate Reclamation, "Greenfields", Ground Floor, No. 1, Opposite Oval Maidan, Fort, Bomby.

1952 Patel, P.R., Patel Building, Delisle Road, Lower Parel, Bombay.

1953 Patil, Sardar A.A., Collector, District Guna (M.B.)

1948 Pavri, P.F., Pavri House, Gundow Street, Fort, Bombay.

1945 Pradyuman, Draughtsman, MG/TD/8(B), M.G.O. A.H.O. New Delhi.

1949 Pramanic, Panna L., 277 Victoria Road, North, Calcutta 35.

1949 Prodhan, K.H., 4, Prodhan Cottage, Convenor Road, Darjeeling, (West Bengal).

1937 Pusalkar, A. D., M.A., LL.B., 'Usha' 118, Shivaji Park, Dadar, Bombay.

1952 Rama Rao, Dr. M., Professor, Nizam College, Hyderabad, Dn.

1952 Ray, Dr. S.C., Deptt. of Archæology, Government of India, Curzon Road, New Delhi.

1941 Rao, Uttam Singh, B.A., Official, Jind State, Krishna Basti, P.O. Sangrur, (Jind, State).

1947 Reu, B.N., M.M., Chand Pole, Jodhpur.

1944 Rode, V.P., M.A., Arch. Asst., Central Museum, Nagpur.

1952 Rutz, W.R., 41/, Brunngasse, Winterthur, Switzerland.

1950 Sassaman, W.R., 6420, Dorchester Ave., Chicago 37, U.S.A.

1951 Satya Prakash, Chief Supdtt. of Archæology & Museum, Jaipur.

1952 Shah, C.M., C/o Shirom Corporation, Dhanraj Mahal, Apollo Pier Road, Bombay 1.

1950 Shah, U.P., Ghadiali Pole, Kuberchand's Lane, Baroda.

1953 Shah, Vithaldas, T., Loharmandi Road, Burhanpur (M.P.)

1940 Sharma, Shri Ram, Principal, D.A.V. College, Solapur.

1950 Shastri, S.N., Professor of Sanskrit, Hindu College Delhi.

1953 Shortt, H.De., S., The Museum, St. Ann Street, Salisbury (England).

1944 Singh Roy, Subhendu, Village Manirambati, P. O. Chakdighi, Distt. Burdwan, or 15 Landsdown Road, Calcutta.

1928 Singhal, C.R., Prince of Wales Museum, Bombay.

1939 Singhi, Narendra Singh, M.Sc., B.L., Gariahat Road, Ballygunj, Calcntta.

1940 Sircar, D.C., M.A., Ph.D., Asst., Epigraphist, Ootacamund, (S.I).

1940 Sohoni, S.V., M.A., I.C.S., Secretary to the Govt. of Bihar, P.W.D Department, Patna.

1952 Spink & Sons Ltd, 5-7, King Street, St. James, London, S.W.1.

1952 Suri, Vidya Sagar, Keeper of Records to Punjab Govt., The Mausa, The Mall, Simla-1.

1925 Tarapore, Lt.Col. P.S., His Exalted Highness the Nizam's Army Medical Service, Sweet Auburn, Near Chanderghat Bridge, Hyderabad, Deccan.

1926 Thorburn, Philip, 'Okehurst', New Park Road, Changeugh, Surrey, England.

1946 Tonk, M.L., No. XV 953, Bawali Gali, Pahar Ganj, New Delhi.

1943 Unvala, J.M, M.A., Ph.D., Parsi Students' Hostel, Gamadia Colony, Tardeo, Bombay.

1934 Upadhyaya, S.C., M.A., Ph.D., Curator, Victoria and Albert Museum, Byculla, Bombay.

1953 Vancheshwanan, Manager, I.R.R. Maniyachi Junction (Southern Railway).

1936 Vats, Madho Sarup, M.A., Director general of Archæology, New Delhi.

1950 Verma, Faquir Chand, C/o Faquir Chand Kunjabiharilal, Kasganj, U.P.

1950 Walker, John, Dept. of Coins and Medals, British Museum, London, W.C.I.

1950 Wodak, E., P.O. Box 539 Singapore.

1950 Zamindar of Kapileswarapuram, East Godavari Dt., 2/54 Luz Church Street, Mylapore, Madras

1950 Zygman, Edmund, 160 West 73rd Street, New York, 23 N. Y.

1916 The Curator, Provincial Museum, Lucknow.

1924 The Curator, Hydrabad Museum, Hyderabad (Dn)

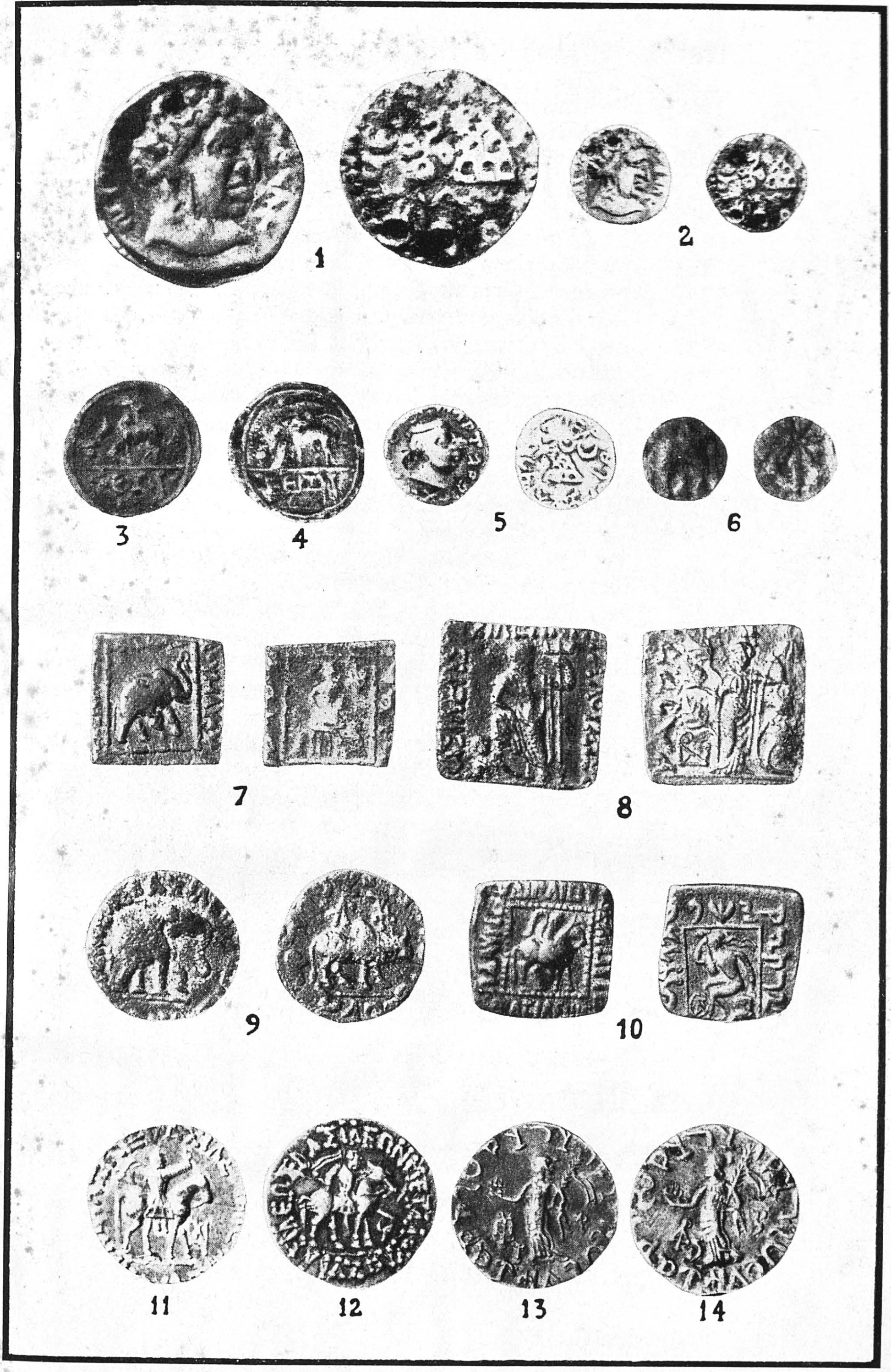
1951 The Asst. Director of Archæology & Curator of Museum, Indore

1950 Supdtt., Archæological Survey, Central Circle, Patna.

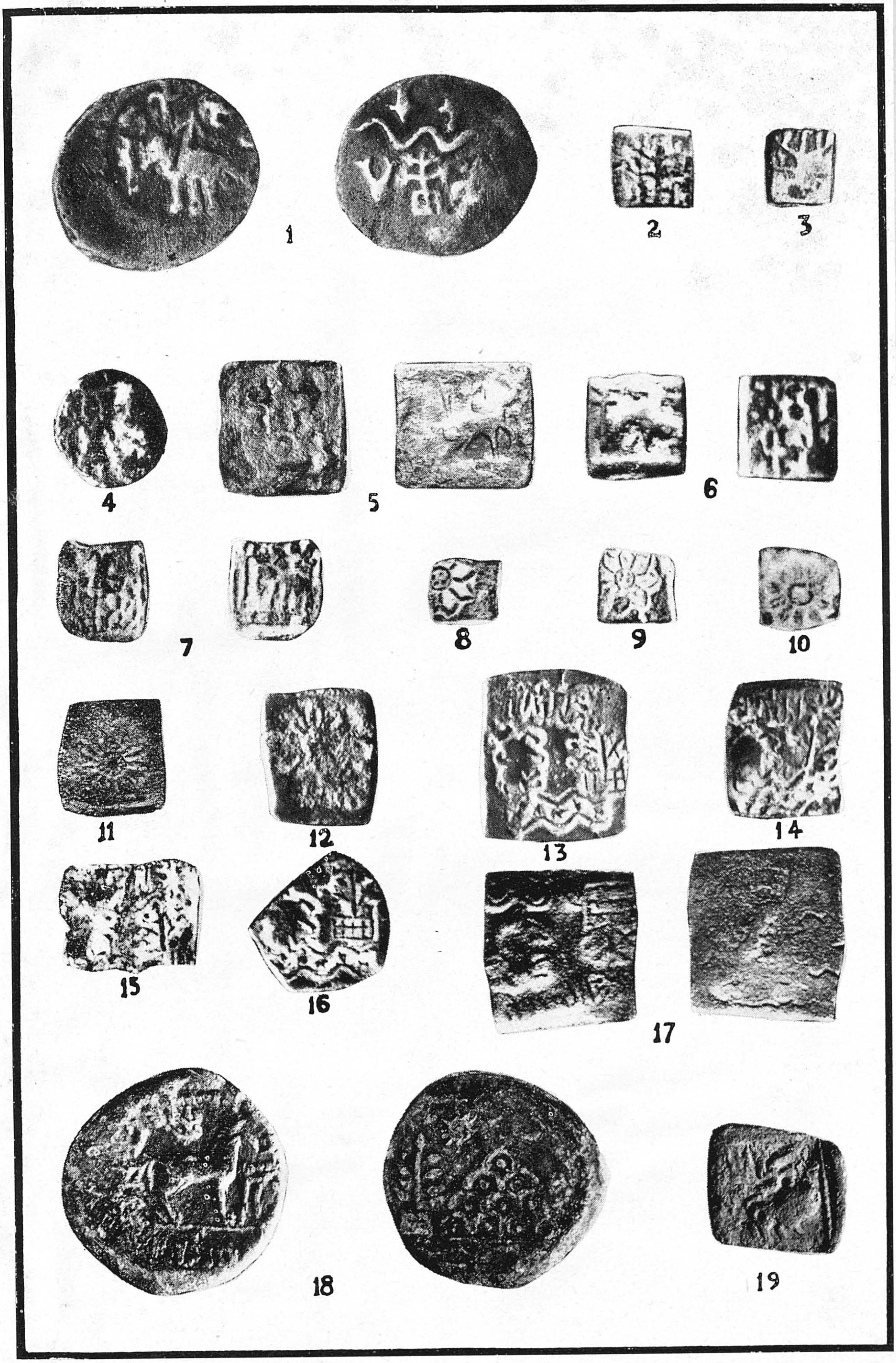
1951 The Director of Archives & Curator of Museum, Qila Mubarak, Patiala.

1920 The Hon. Secretary, Watson Museum, Rajkot (Kathiawar).
1923 The Director of the Prince of Wales Museum, Bombay.
1924 The Curator, Patna Museum, Patna.
1936 The Curator, Curzon Museum of Archæology, Mathura.
1940 The Curator, Central Museum, Nagpur.
1946 The Supurintendent, Central Asian Antiquities Museum, New Delhi.
1940 The Superintendent, Research Museum, Bhubhaneshwar (New Capital), Orissa.
1947 The Curator, Mysore Govt. Museum, Bangalore.
1947 The Curator, State Museum, Bharatpur.
1941 The Curator, State Museum, Pudukkottai (S. I.)
1941 The Superintendent, Goverment Museum, Madras.
1942 The Curator, Rajputana Museum, Ajmer.
1942 The Curator, Scindia Oriental Institute, Ujjain.
1949 The Director, Institute of Archæology, Vallabh Vidyanagar (Via Anand).
1919 The Director General of Archæology in India, New Delhi.
1938 The Director of Archæology, Gwalior, State, Gwalior.
1943 The Superintendent of Archæology, Jaipur State, Jaipur.
1950 Superintendent, Dept. of Archæology, S. E., Circle, Maharampet P. O. Vizagapatam.
1946 The Librarian, Meerut College Library, Meerut (U.P.)
1943 The Asst. Secretary, Gujarat Vernacular Society, Bhadra, Ahmedabad.
1940 The Government Epigraphist for India, Ootacamund.
1918 The Secretary, Bombay Branch Royal Asiatic Society, Town Hall, Bombay.
1925 The Hony. Secretary, K. R., Cama Oriental Institute, Apollo Street, Bombay.
1639 The Librarian, University Library, Bombay.
1940 Librarian, University Library, Banaras Hindu University, Banaras.
1943 The Librarian, University Library, Allahabad.
1944 The Librarian, Gurukula University, Gurukula Kangri (U. P.)
1945 The Librarian, Calcutta University Library, Ashutosh Bldg., Calcutta.
1948 The Librarian, School of Oriental and African Studies Library, University of London, W. C. I.
1949 The Librarian, East Punjab University Library, U. S. Club, Simla.
1940 The Director, Kannada Research Institute, Dharwar.

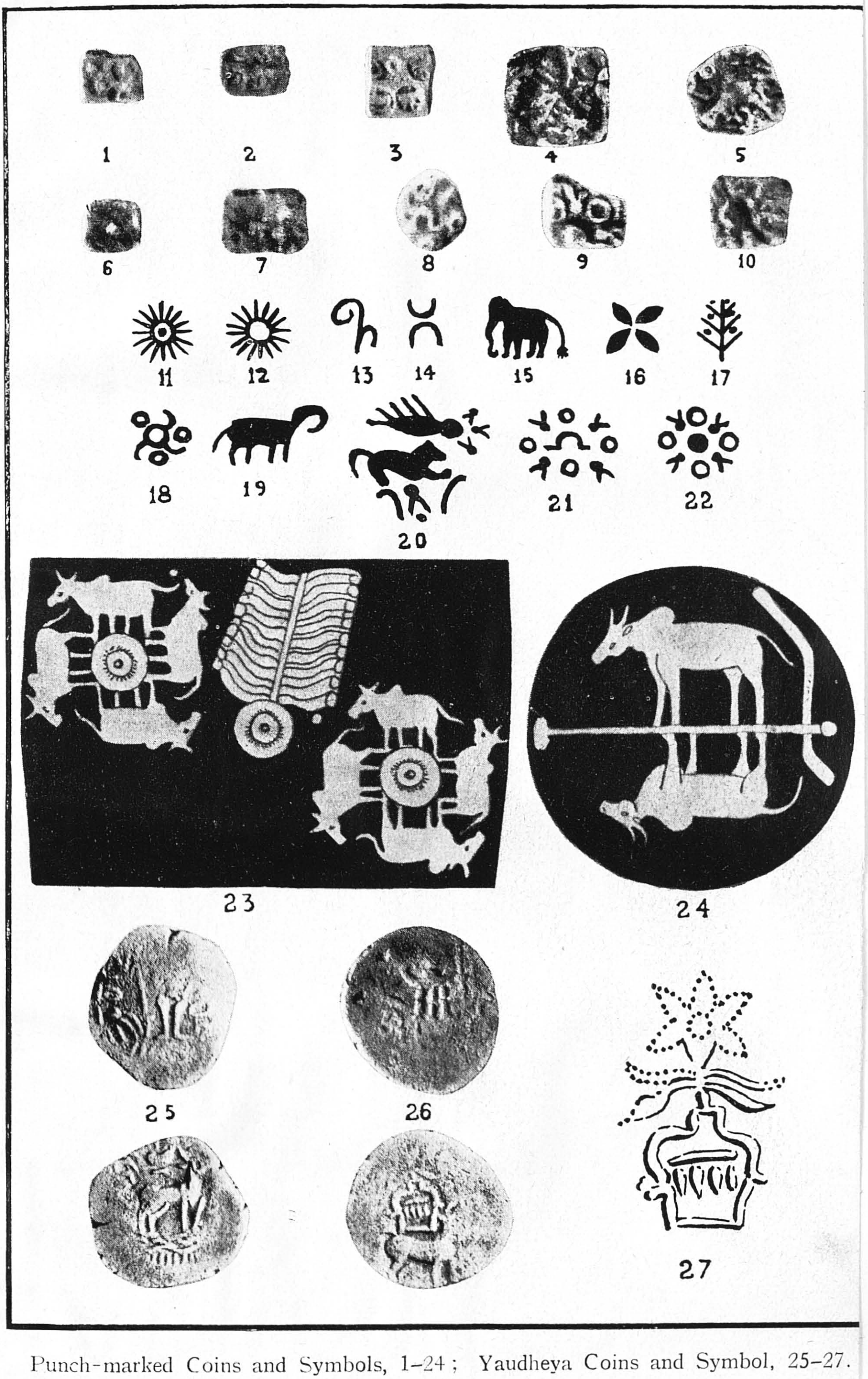
1940 The American Numismatic Society, Broadway, at 156th Street, New York City.
1950 The Indian Institute Library (Deptt. of Bodleian Library), Oxford, England.
1950 The Hon. Librarian, University Library, Lucknow.
1940 The Librarian, Nagpur University, Nagpur.
1948 The Librarian, J. N. Petit Institute, Bombay.
1948 The Asstt. Curator, Assam Provincial Museum, Gauhati.
1950 The Director, Museum and Picture Gallery, Baroda
1951 The Librarian, Ravenshaw College Kanika Library, Cuttack 3.
1952 The Supdtt., Arch. Survey, Northern Circle, Agra.
1952 The Director of Archæology, Moti Mahal, Bhopal.
1952 Hiralal Archæological Society, Post Box No. 50, Jabalpur.
1952 The Curator, Lady Wilson Museum, P. O. Dharampur (Dist. Surat).
1952 The Dy. Librarian, Government of India, National Library, Belvedere, Calcutta 27.
1252 The Librarian, Central Institute of Education, Government of India, 33 Probyn Road, Delhi, 9.
1952 The Librarian, India Office Library, Commonwealth Relations Office, King Charles Street, Whitehall, London, S.W.I.
1950 The Minister for Iraq, Iraq Legation, Imperial Hotel, New Delhi.
1953 The Superintendent, Saraswati Bhawan, Udaipur.



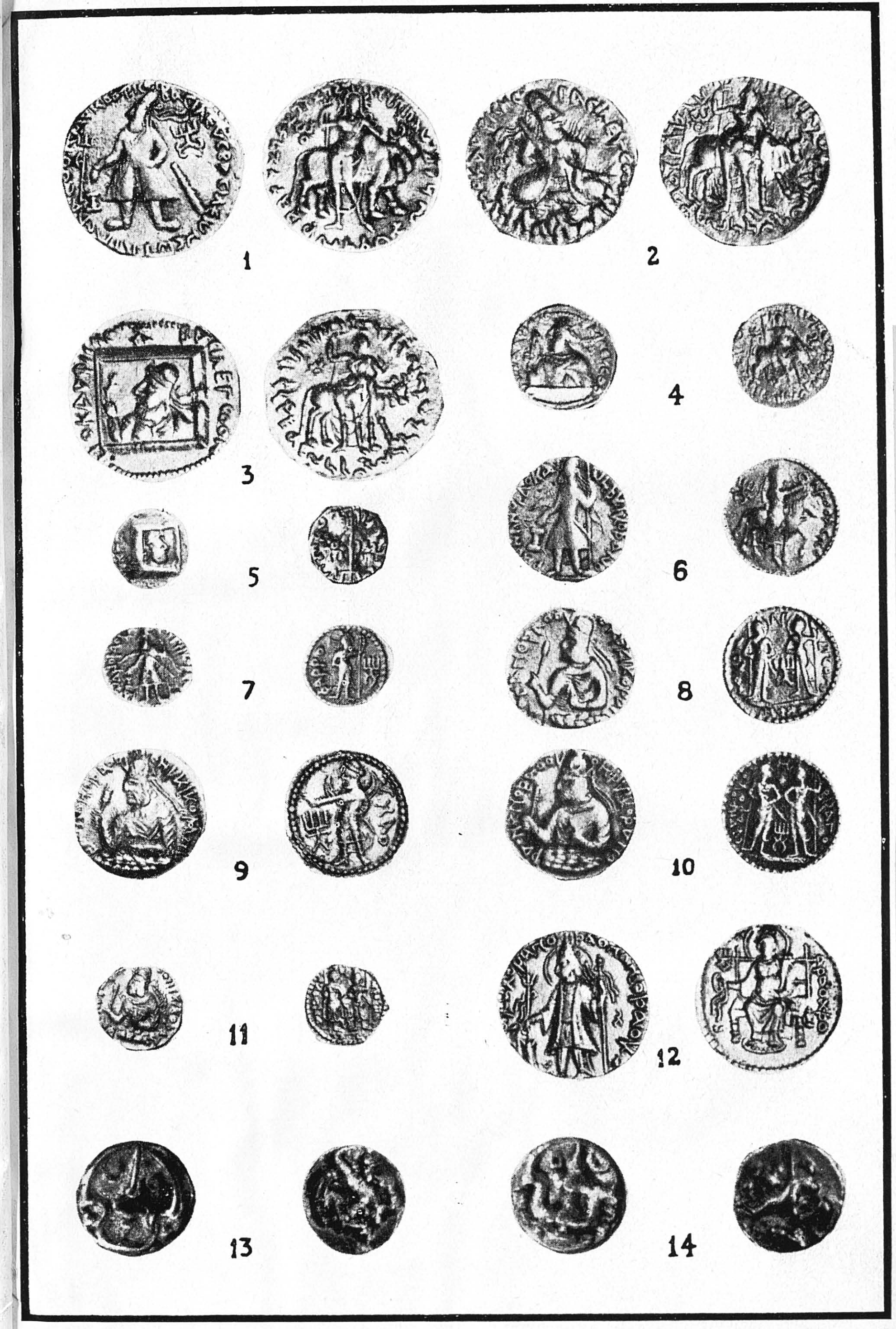
Coins from Mr. Advani's Collection.



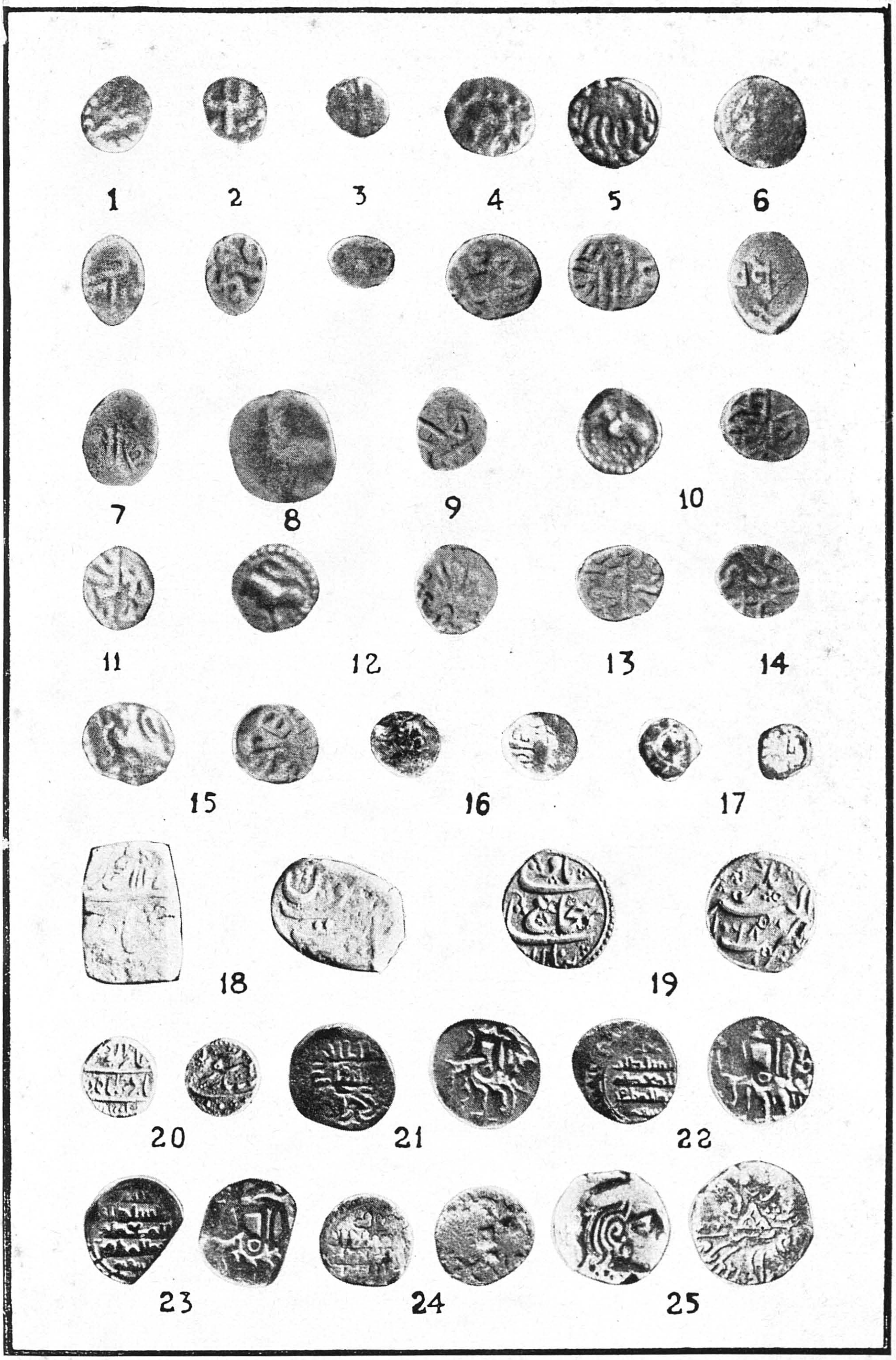
Coins from Madhya-Pradesha, 1–12; Coins of Bhāgila City, 13–17; Sātavāhana Coins, 18–19.



Punch-marked Coins and Symbols, 1–24; Yaudheya Coins and Symbol, 25–27.



Forged Silver Kushāna Coins, 1–12; S'ilāhāra Gold Coins, 13–14.



Nāga Coins, 1–17 ; Medieval Coins, 18–24 ; A Kshatrapa Coin, 25.